STEREO CONTROL AMPLIFIER

KC-208

SERVICE MANUAL

KENWOOD

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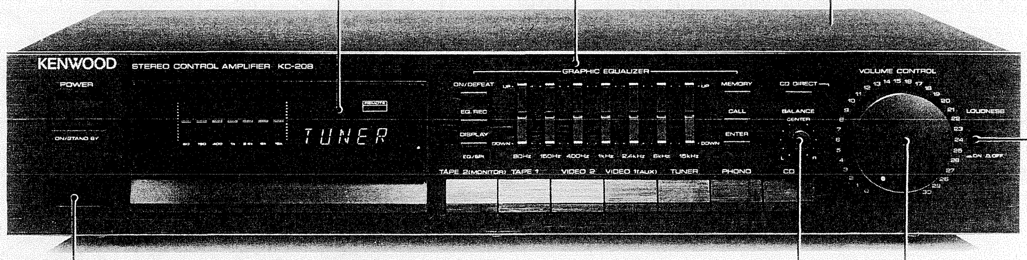


Dressing plate (DISPLAY)
(B03-2416-04)

Panel
(A20-5753-02)

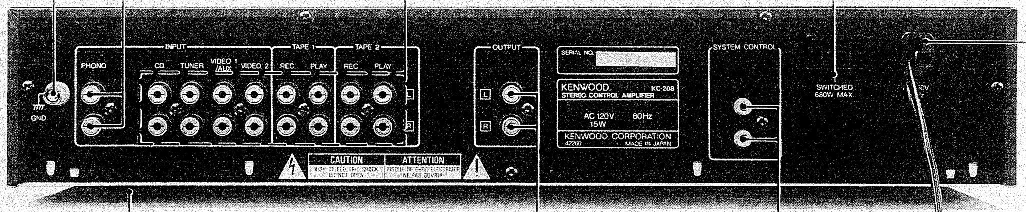
Metallic cabinet
(A01-1761-01)

Knob (LOUDNESS)
(K27-1853-04)

Dressing plate (REMOTE)
(B03-2417-04)

Knob (BALANCE)
(K29-3632-04)

Knob ass'y (VOLUME)
(K29-3585-04)



Binding post (GND)
(N08-0128-35)

Phono jack (2P) (PHONO)
(E13-0235-05)

Phono jack (16P) (INPUT, TAPE 1, 2)
(E13-0820-05)

Slide switch
(S31-2126-05)

Power cord bushing
(J42-0083-05)

Miniature phone jack
(SYSTEM CONTROL)*
(E11-)

Foot
(J02-0366-15) ×4

Phono jack (2P) (OUTPUT)
(E13-0235-05)

AC power cord*
(E30-)

*Refer to Parts List on page 28.

KC-208

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BLOCK LEVEL DIAGRAM 4
CIRCUIT DESCRIPTION 5
PC BOARD 11
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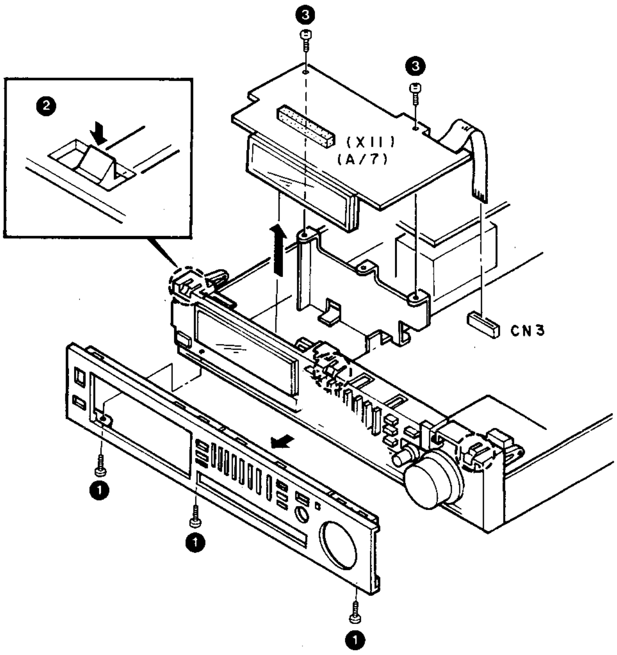
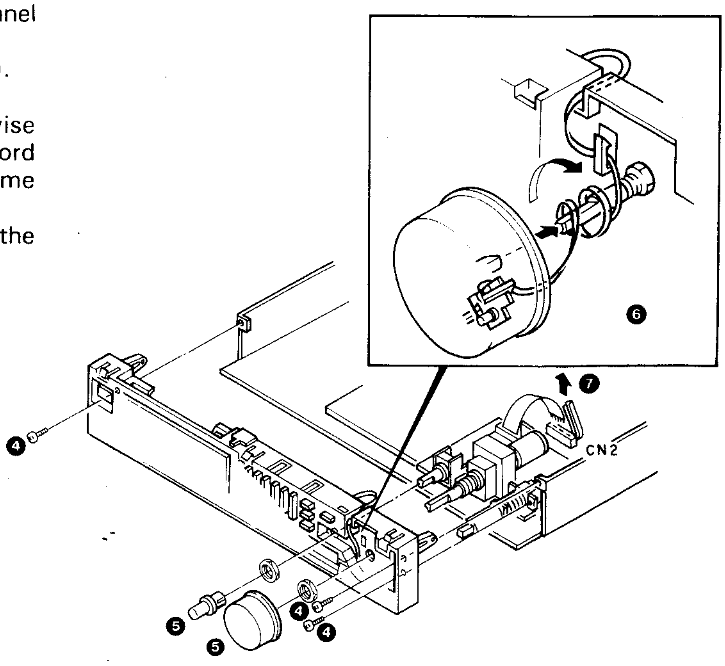
SPECIFICATIONS .... Back cover

DISASSEMBLY FOR REPAIR

1. Remove the metalic cabinet before doing the following: Remove the three screws (❶) holding the front panel to the chassis.
2. Press the three claws (❷) on the subpanel holding the front panel in the direction of the arrow, then remove the front panel. (Take care not to hurt the volume knob.)
3. Remove the two screws (❸) holding the Control unit (X11-2660-10) (A/7).
   Remove the cord from the connector (CN3) of the Audio unit (X09-2590-10).

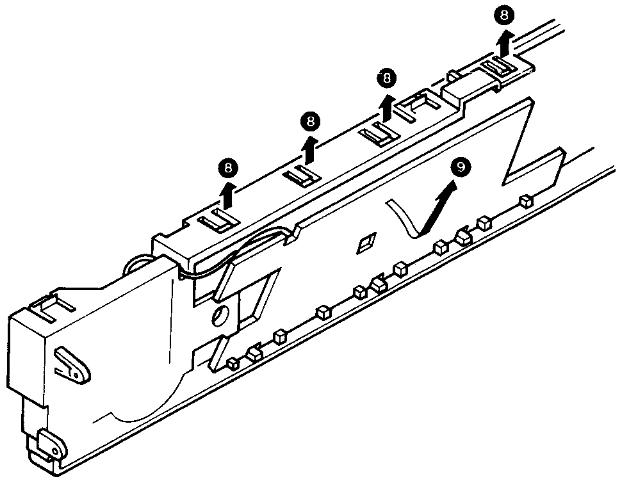


4. Remove the two screws (❹)holding the Subpanel at both ends.
5. Remove the volume and balance knods (❺).
6. Fitting the volume kob.
   Turn the volume control spindle fully clockwise (in the direction of the arrow) and wrap the cord around the spindle twice, then fit the volume knob (❻)
7. Remove the cord from the connector (CN2) of the Audio unit (X09-2590-11) (❼).

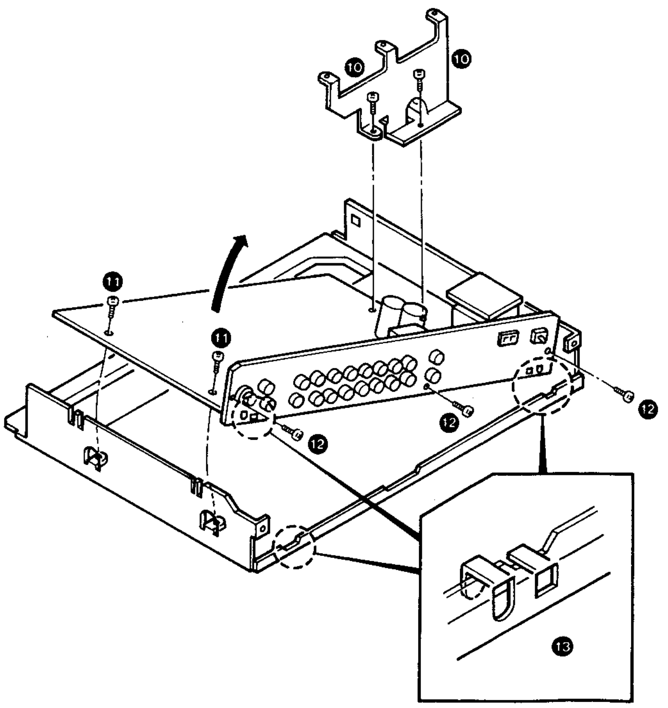


DISASSEMBLY FOR REPAIR

8. Press the four claus on the subpanel holding the Control unit (X11-) (B/7) in the direction of the arrow (❽).
9. Remove the Control unit (X11-) (B/7) in the direction of the arrow. When installing, hook the PC board lower claws into place, then insent the Control unit in the opposite direction to that shown by the arrow (❾)

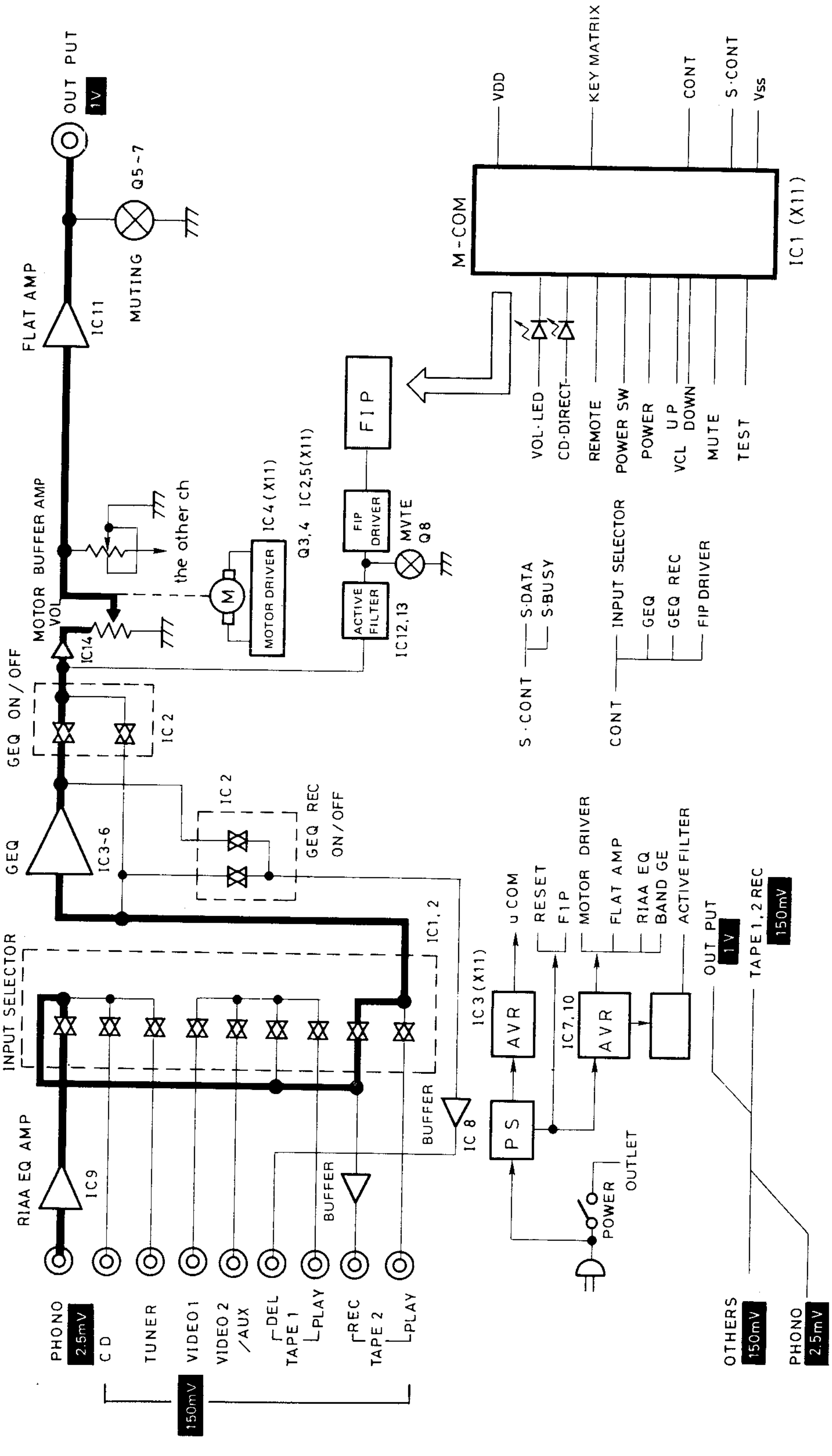


10. Remove the two screws (❿) holding the clamp to the chassis.
11. Remove the two screws (⓫) holding the Audio unit (X09-2590-11) to the rear panel.
12. Remove the three screws (⓬) holding the rear panel to the chassis. Lift the PC board in the direction of the arrow.
13. When fiting the rear panel to the chassis, hook the two claws of rear panel to the chassis (⓭).



KC-208

BLOCK LEVEL DIAGRAM


PHONO 2.5mV
CD
TUNER
VIDEO1
VIDEO 2 /AUX
TAPE 1 DEL PLAY
TAPE 2 REC PLAY
150mV
RIAA EQ AMP
IC9
BUFFER
INPUT SELECTOR
IC1, 2
BUFFER
IC 8
GEQ
IC3-6
IC 2
GEQ REC ON/OFF
GEQ ON/OFF
IC 2
IC14
MOTOR VOL
BUFFER AMP
the other ch
MOTOR DRIVER
IC 4 (X11)
Q3, 4 IC2,5(X11)
ACTIVE FILTER
IC12,13
FIP DRIVER
MVTE Q8
FIP
FLAT AMP
IC11
MUTING
Q5-7
OUT PUT 1V
M-COM
IC1 (X11)
VDD
KEY MATRIX
CONT
S·CONT
Vss
VOL·LED
CD·DIRECT
REMOTE
POWER SW
POWER
VCL UP DOWN
MUTE
TEST
S·CONT
S·DATA
S·BUSY
CONT
INPUT SELECTOR
GEQ
GEQ REC
FIP DRIVER
PS
POWER
OUTLET
AVR
IC3 (X11)
AVR
IC7, 10
u COM
RESET
FIP
MOTOR DRIVER
FLAT AMP
RIAA EQ
BAND GE
ACTIVE FILTER
OUT PUT 1V
TAPE 1, 2 REC 150mV
OTHERS 150mV
PHONO 2.5mV

CIRCUIT DESCRIPTION

FUNCTION OF COMPONENTS

Control unit (X11-2660-10)

Component	Use/Function	Operation/Condition/Interchangeability
IC1	Microprocessor	
IC2	FIP driver	5V single power supply
IC3	3-pin regulator	+5V constant voltage
IC4	Reversible motor driver	For driving electric volume control
IC5	FL tube filament ON/OFF	
Q1	Stop circuit	
Q2	Reset circuit	
Q3, 4	FL tube filament ON/OFF	

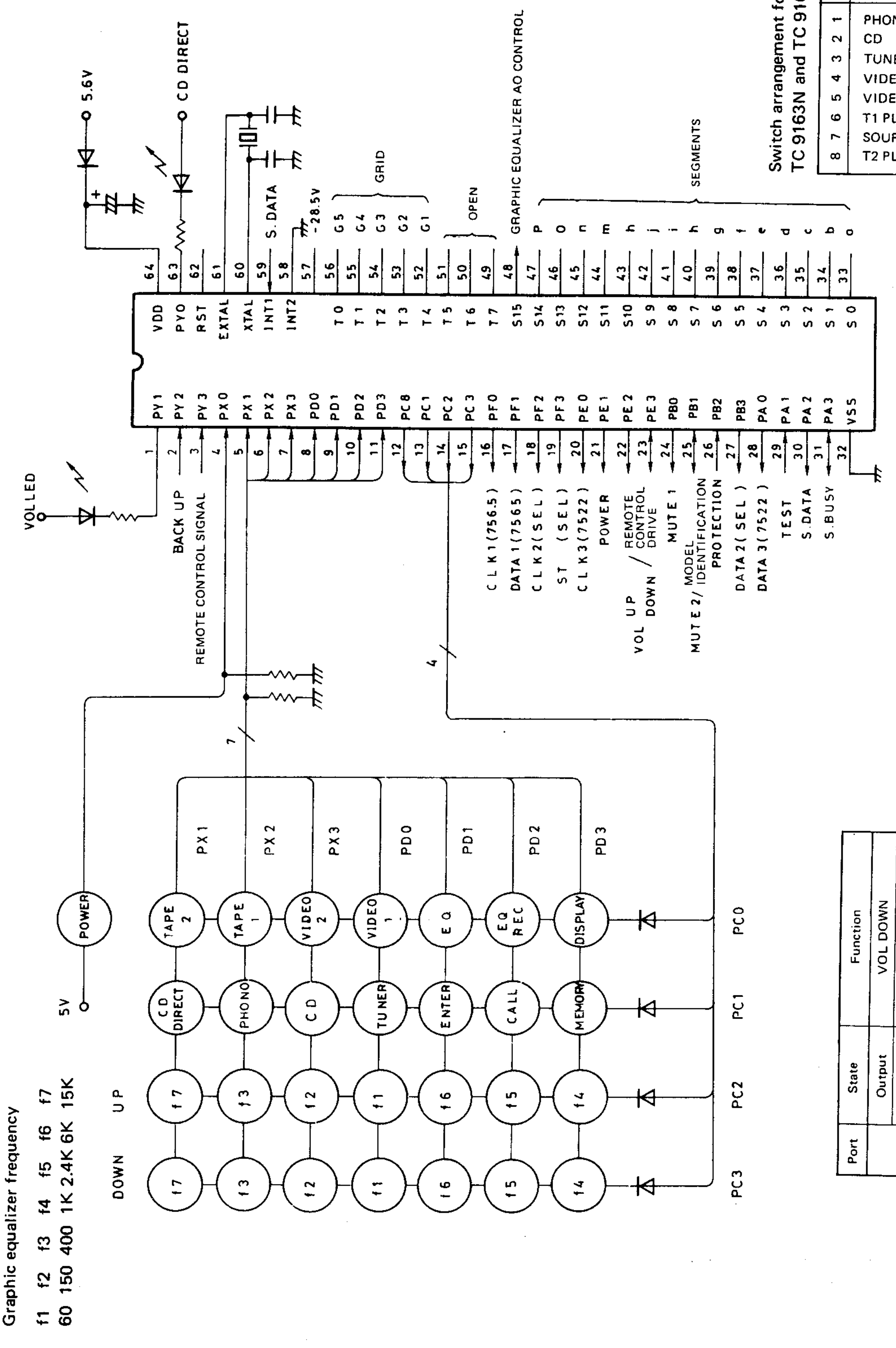
Note : For a descripton of the function of the microprocessor, refer to KA-127

Audio unit (X09-2590-11)

Component	Use/Function	Operation/Condition/Interchangeability
IC1, 2	Selecter	Selects an input line and surtches the graphic equalizer ON and OFF
IC3	Electric Volume Control	Sets the graphic equalizer level
IC4, 5	Amplifier	Semiconductor for the graphic equalizer
IC7	Regulator	For +15V
IC6	Graphic equalizer amplifier	
IC9	Equalizer amplifier	
IC11	Preamplifier	
IC14	Buffer	
IC12, 13	Adder and active filter	Addition of L ch, R ch, and BPF for specturm analyzer
IC8	Buffer	Amplifies REC signals from TAPE1 and TAPE2
IC10	Regulator	For −15V
Q5, 6, 7	Muting	OUTPUT line muting
Q8	Muting	Spectrum analyzer signal muting
Q3	Relay drive	Outlet power supply switching

CIRCUIT DESCRIPTION

IC1 (X11-2660-XX): μ-com. CXP 5014-328S


5.6V
CD DIRECT
S. DATA
-28.5V
GRID
OPEN
GRAPHIC EQUALIZER AO CONTROL
SEGMENTS
G5 G4 G3 G2 G1
p o n m k j i h g f e d c b a
64 VDD
63 PYO
62 RST
61 EXTAL
60 XTAL
59 INT1
58 INT2
57
56 T0
55 T1
54 T2
53 T3
52 T4
51 T5
50 T6
49 T7
48 S15
47 S14
46 S13
45 S12
44 S11
43 S10
42 S9
41 S8
40 S7
39 S6
38 S5
37 S4
36 S3
35 S2
34 S1
33 S0
1 PY1
2 PY2
3 PY3
4 PX0
5 PX1
6 PX2
7 PX3
8 PD0
9 PD1
10 PD2
11 PD3
12 PC8
13 PC1
14 PC2
15 PC3
16 PF0
17 PF1
18 PF2
19 PF3
20 PE0
21 PE1
22 PE2
23 PE3
24 PB0
25 PB1
26 PB2
27 PB3
28 PA0
29 PA1
30 PA2
31 PA3
32 VSS
VOL LED
BACK UP
REMOTE CONTROL SIGNAL
CLK1(756.5)
DATA1(7565)
CLK2(SEL)
ST (SEL)
CLK3(7522)
POWER
VOL UP / DOWN / REMOTE CONTROL DRIVE
MUTE 1
MUTE 2/ MODEL IDENTIFICATION PROTECTION
DATA2(SEL)
DATA3(7522)
TEST
S.DATA
S.BUSY
4
7
PX1 PX2 PX3 PD0 PD1 PD2 PD3
POWER
5V
TAPE 2
TAPE 1
VIDEO 2
VIDEO 1
EQ
EQ REC
DISPLAY
CD DIRECT
PHONO
CD
TUNER
ENTER
CALL
MEMORY
f7 f3 f2 f1 f6 f5 f4
UP
DOWN
PC0
PC1
PC2
PC3

Graphic equalizer frequency

f1	f2	f3	f4	f5	f6	f7
60	150	400	1K	2.4K	6K	15K

Switch arrangement for TC 9163N and TC 9164N

SEL. IC	TC9163N	TC9164N
1	PHONE	GE ON
2	CD	GE OFF
3	TUNER	CD DIRECT
4	VIDEO1	
5	VIDEO2	
6	T1 PLAY	
7	SOURCE	T1 REC
8	T2 PLAY	T1 GE REC

*The output port for the display tube requires pulldown for piggybacking.

Port	State		Function
PE3	Output		VOL DOWN
	Input	"H"	Remote control: No
		"L"	Remote control: Yes
PB1	Output		MUTE 2
	Input	"H"	KC-208
		"L"	KA-128
PA1	Input	"H"	NORM
		"L"	TEST
PB2	Input	"H"	PROTECTION
		"L"	NORM

CIRCUIT DESCRIPTION

Pin description

Pin No.	Symbol	I/Ō	Description
1	PY$_1$	Ō	Volume contiol, LED control pin. Normally ON;flashing when remote control volume UP/DOWN is pressed.
2	PY$_2$	I	Backup detection pin "H" : Normal operation "L" : Backup
3	PY$_3$	I	Remote control signal input pin. Active "L".
4	PX$_0$	I	Key matrix return signal input pin. Active "H"
5	PX$_1$	I	
6	PX$_2$	I	
7	PX$_3$	I	
8	PD$_0$	I	
9	PD$_1$	I	
10	PD$_2$	I	
11	PD$_3$	I	
12	PC$_0$	Ō	Key matrix digit signal output pin. (Normally all "H")
13	PC$_1$	Ō	
14	PC$_2$	Ō	
15	PC$_3$	Ō	
16	PF$_0$	Ō	LC7565 clock pin(CLK1) LC7565:Graphic equalizer display IC(DATA1)
17	PF$_1$	Ō	LC7565 data pin Active "H"
18	PF$_2$	Ō	TC9163N and TC9164N clock pin(CLK$_2$) TC9163N and TC9164N:Selector switching ICs Active "H"
19	PF$_3$	Ō	TC9163N and TC9164N strobe pin(ST) Active "H"
20	PE$_0$	Ō	LC7522 clock pin(CLK3) LC7522:ELectronic volume control for graphic equalizer. Active "H"
21	PE$_1$	Ō	Power relay control pin Active "H"
22	PE$_2$	Ō	UP Electronic volume control pin Active "H"
23	PE$_3$	Ō/1	DOWN Electrouic volume control pin *The DOWN pin also functions as a remote control identifi cation pin
24	PB$_0$	Ō	MUTE1 Mute control pin(for LINE muting)Active "L"
25	PB$_1$	O/1	MUTE2 Mute control pin(for REC muting)Active "L"
26	PB$_2$	I	PROTECTION Protection state detection pin Active "H"
27	PB$_3$	O	TC9163N and TC9164N data pin(DATA2)Active "H"
28	PA$_0$	Ō	LC7522 data pin(DATA3) Active "H"
29	PA$_1$	I	TEST Test mode detection pin "H" Normal operation "L" Test mode *Detected when reset
30	PA$_2$	I/Ō	S. DATA Used for serial communication(data pin) Active "H"
31	PA$_3$	I/Ō	S. BUSY Used for serial communication (busy pin) Active "H"
32	Vss		GND pin
33 ~ 47	S$_0$ ~ S$_{14}$	Ō Ō	a FL tube segment control pin Active "H" ~ *With a pulldown resistor as a mask option (pins 33 to 66) p
48	S$_{15}$	Ō	−30V control pin for KC-208 Aϕ pin control pin for graphic equalizer display in the FL tube for (KA-128). Active "H"
49 ~ 51	T7 ~ T5	Ō Ō	Not used
52 ~ 56	T4 ~ TO	Ō	G1 Grid control pin for FL tube Active "H" ~ G2
57	V$_{FDP}$		FL tube drive power pin(−30V)
58	INT$_2$	I	Unused interrupt pin
59	INT$_1$	I	Receive interrupt pin for serial communication
60	XIAL		System clock generation pin 4.19 MHz
61	EXTAL		
62	RST	I	Reset input pin "L"reset
63	PYϕ	Ō (n, d)	CD DIRECT LED control pin *Used for KC-208 only
64	V$_{DD}$		5V power pin for microprocessor *Keep the poential with a super capacitor, etc, for backup.

KC-208

CIRCUIT DESCRIPTION

1. Test mode

When pin 29 of the microprocessor is pulled LOW (grounded) by connecting it to an outlet (reset), test **mode is entered.**

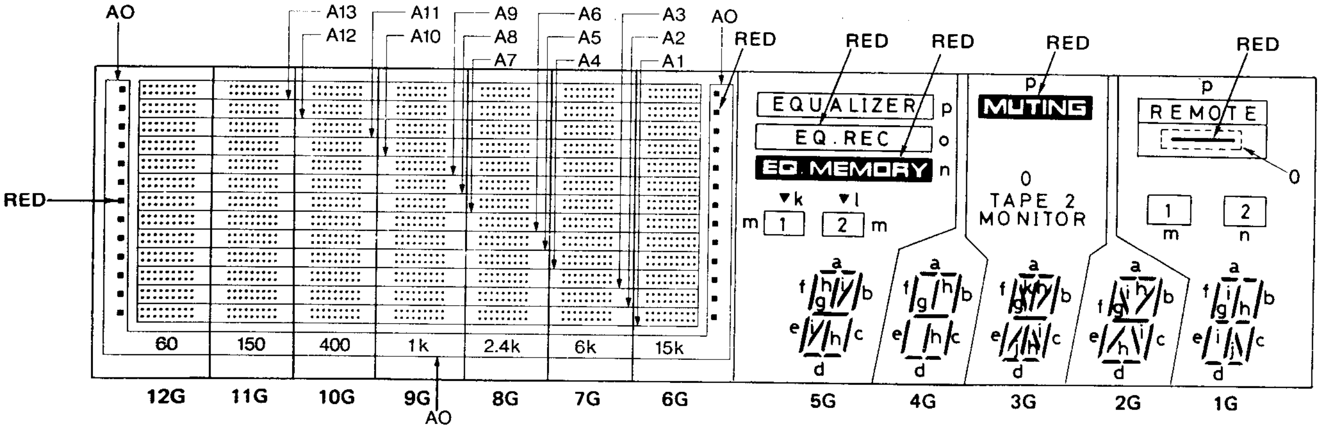
(a) All-segments-ON mode
All the segments except those of the graphic equalizer and the ℓ 2 m in figure 1 come on. When this happens, the graphic equalizer key is inhibited and the SELECTOR key can be operated, but the display remains unchanged. Pressing the Power key once cancels the all-segments-ON mode.

(b) Graphic equalizer test mode
The state of the graphic equalizer can be switched between MAX and MIN by pressing the UP/DOWN key once.

MAX ⇄ FLAT ⇄ MIN

(c) Cancel
Test modes a and b are set to their initial states (SEL, TUNER, and graphic equalizer memory all flat) when pin 29 of the microprocessor is disconnected.

Internal connector (grid and segment layout/color specification) **Fig. 1**



2. Protection function (expect KC-208)

Pin 26 of the microprocessor goes high (5V) to indicate the protection state (abnormal operation).

(a) Protection state setting conditions
The state of the protection IC of the main amplifier is always monitored. When the protection IC enters the protection state, a high signal (5V) is input to the microprocessor. The microprocessor allows about 400ms chaitering time (to prevent malfunction) and then enters the protection state.

(b) Protection indication
"P-OFF" flashes on the character display (selector display) of the fluorescent tube.

(c) Canceling the state

- When in the protection state, all keys except the POWER key are disabled.
- When the protection IC enters the protection state because of a momentary voltage drop or power failure and recovers from it automatically, the protection display automatically returns to the normal selector display.

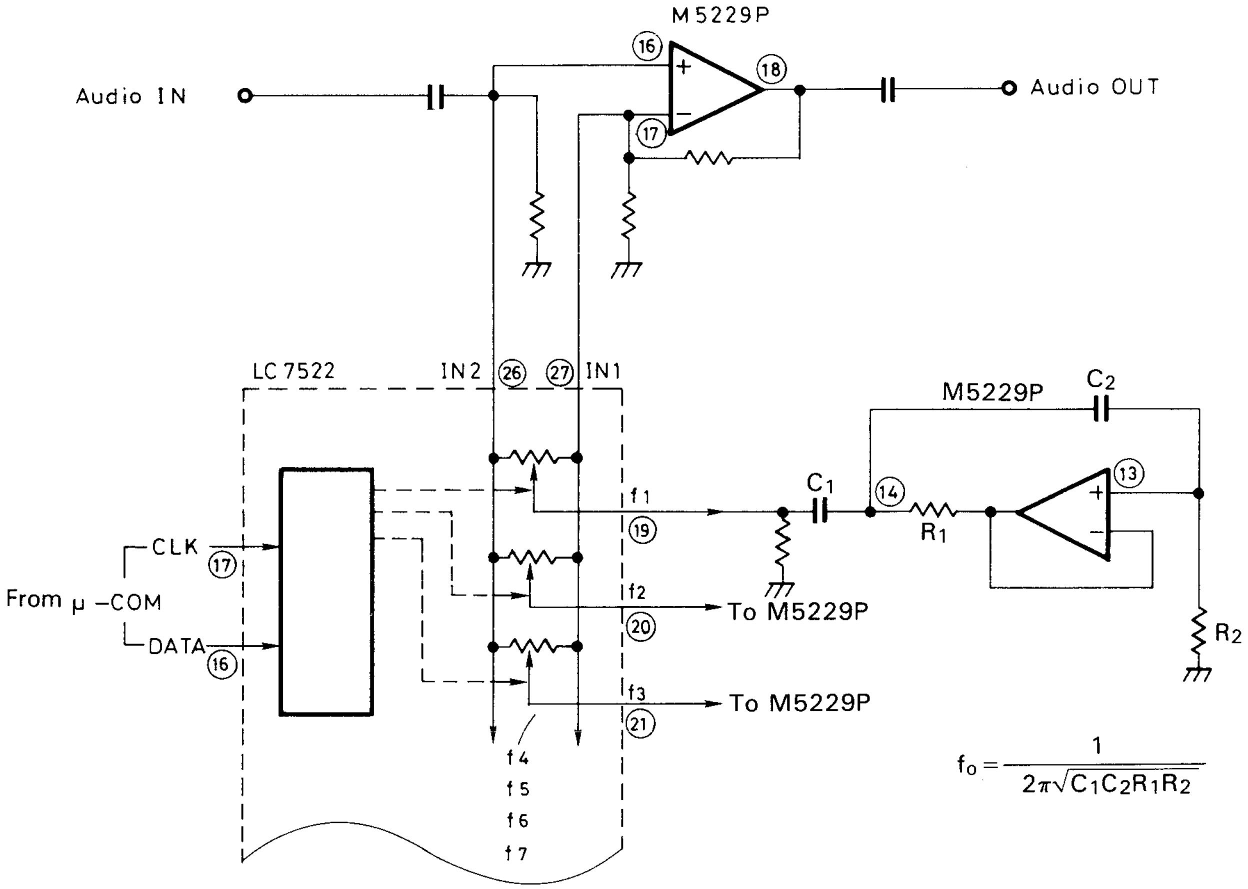
(d) The microprocessor does not monitor the protection IC state for 5 seconds after the power is switched ON.

3. Model Identification (KC-208 [Preamplifier]/KA-128 [Pre-main amplifier])

- When the signal on pin 25 of the microprocessor is high, the model is identified as a KC-208 (preamplifier). When the signal is low, the model is identified as a KA-128 (Pre-main amplifier).
- Separate program processing is performed when the power is switched ON and OFF.
- Pin 48 (S15) of the KC-208 (preamplifier) controls the FL tube drive power supply (—30V) when the power is switched ON, S15 is pulled high when the display lights.

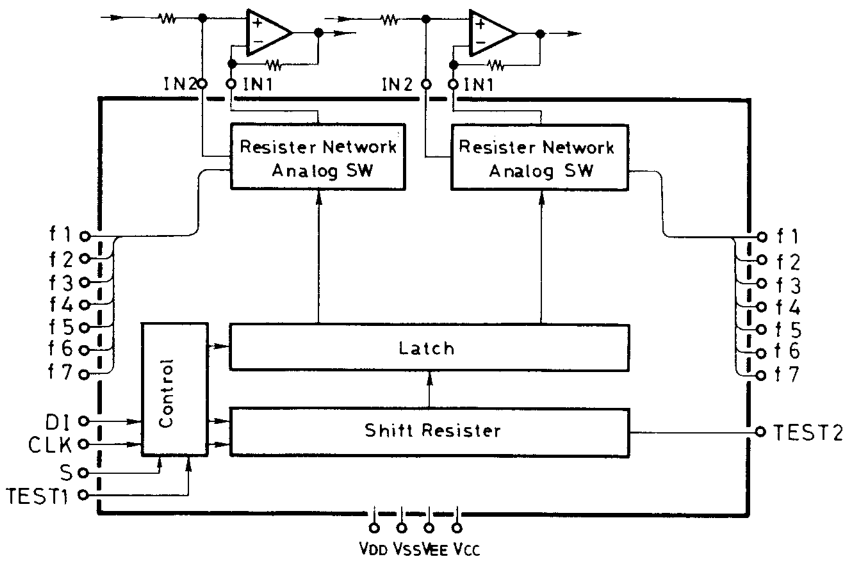
CIRCUIT DESCRIPTION

Graphic equalizer diagram


M5229P
⑯
⑰
⑱
Audio IN
Audio OUT
LC 7522
IN2
㉖
㉗
IN1
CLK
⑰
From μ -COM
DATA
⑯
f1
⑲
f2
⑳
To M5229P
f3
㉑
To M5229P
f4
f5
f6
f7
M5229P
C2
C1
⑭
R1
⑬
R2

$$f_0 = \frac{1}{2\pi\sqrt{C_1C_2R_1R_2}}$$

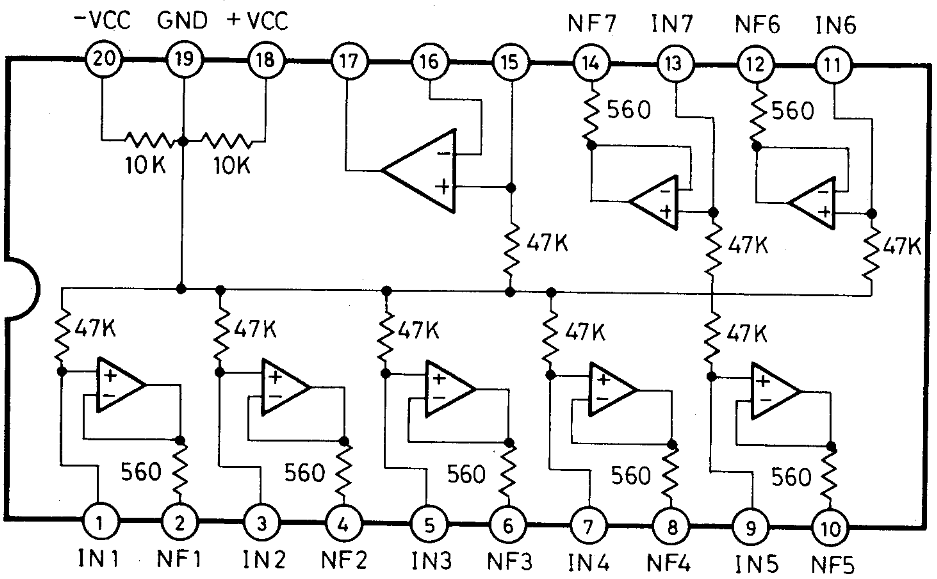
IC3 (X09-2590-XX) (LC7522) 7-element 2-channel volume IC


IN2
IN1
IN2
IN1
Resister Network
Analog SW
Resister Network
Analog SW
f1
f2
f3
f4
f5
f6
f7
f1
f2
f3
f4
f5
f6
f7
Control
Latch
Shift Resister
DI
CLK
S
TEST1
TEST2
VDD VSS VEE VCC

KC-208

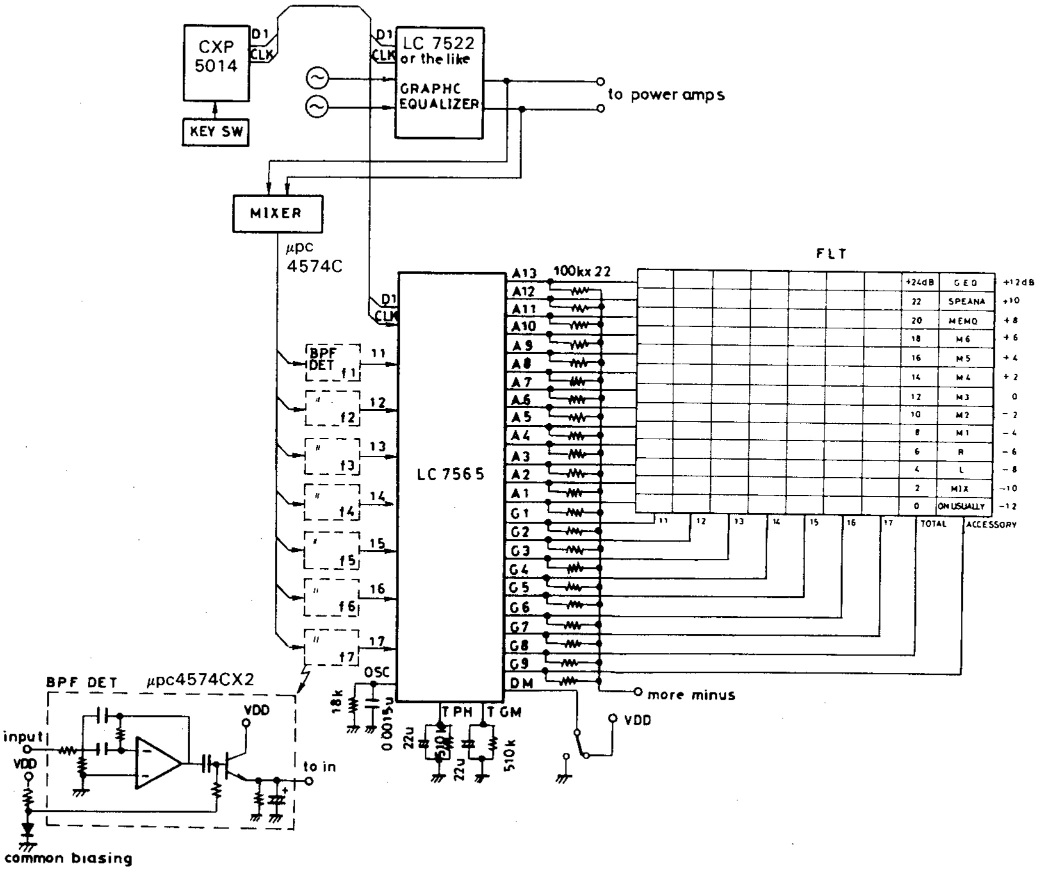
CIRCUIT DESCRIPTION

IC4, 5 (X09-) 7-elements G.E. IC (M5229P)


-VCC
GND
+VCC
NF7
IN7
NF6
IN6
20
19
18
17
16
15
14
13
12
11
10K
10K
560
560
47K
47K
47K
47K
47K
47K
47K
47K
560
560
560
560
560
1
2
3
4
5
6
7
8
9
10
IN1
NF1
IN2
NF2
IN3
NF3
IN4
NF4
IN5
NF5

IC2 (X11-2660-XX) FL DRIVER FOR G.E. (LC7565)

Terminal connection diagram & keymatrix connection


CXP 5014
D1
CLK
KEY SW
LC 7522 or the like
GRAPHC EQUALIZER
to power amps
MIXER
μpc 4574C
BPF DET f1
11
f2
12
f3
13
f4
14
f5
15
f6
16
f7
17
LC 7565
OSC
18k
0.0015μ
TPH
TGM
22u
510k
22u
510k
A13
100k×22
A12
A11
A10
A9
A8
A7
A6
A5
A4
A3
A2
A1
G1
G2
G3
G4
G5
G6
G7
G8
G9
DM
more minus
VDD
FLT
+24dB
GEQ
+12dB
22
SPEANA
+10
20
MEMO
+8
18
M6
+6
16
M5
+4
14
M4
+2
12
M3
0
10
M2
-2
8
M1
-4
6
R
-6
4
L
-8
2
MIX
-10
0
ON USUALLY
-12
11
12
13
14
15
16
17
TOTAL
ACCESSORY
BPF DET
μpc4574CX2
input
VDD
VDD
to in
common biasing

PC BOARD (Component Side View)

Audio unit
(X09-2590-XX)

IC1

1	−15V
28	15V

IC2

1	−15V
28	15V

IC3

1	7V
11	−7V
12	−7V
13	−7V
14	−7V
15	5V

IC4

18	15V
20	−15V

IC5

18	15V
20	−15V

IC6

1	0V
4	−15V
7	0V
8	15V

IC7

1	21V
3	15V

IC8

1	0V
4	15V
7	0V
8	0V
11	−15V
14	0V

IC9

1	0V
4	−15V
7	0V
8	15V

IC10

2	−20V
3	−15V

IC11

1	0V
4	−15V
7	0V
8	15V

IC12

4	15V
8	0V
11	−15V

IC13

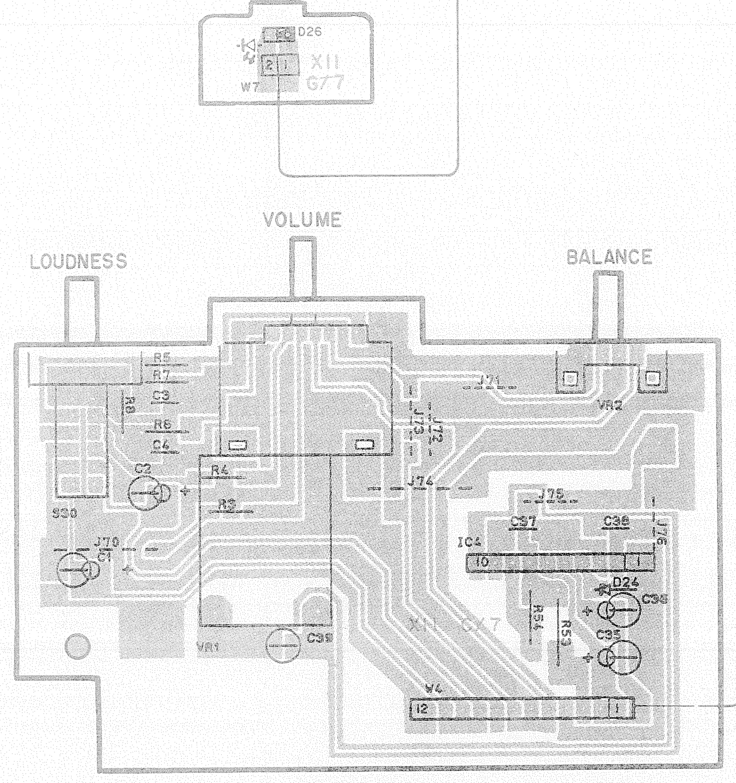
4	15V
8	0V
11	−15V

IC14

1	0V
4	−15V
7	0V
8	15V

Q7

E	5V
C	—
B	—


LOUDNESS
VOLUME
BALANCE
X11 G/7
X11-C47

Control unit
(X11-2660-XX)

IC1

1, 2	5V
57	−31V
64	5V

IC2

42	5V

IC3

1	10.9V
3	5.7V

IC4

4	5.1V
7	12V
8	12V

IC5

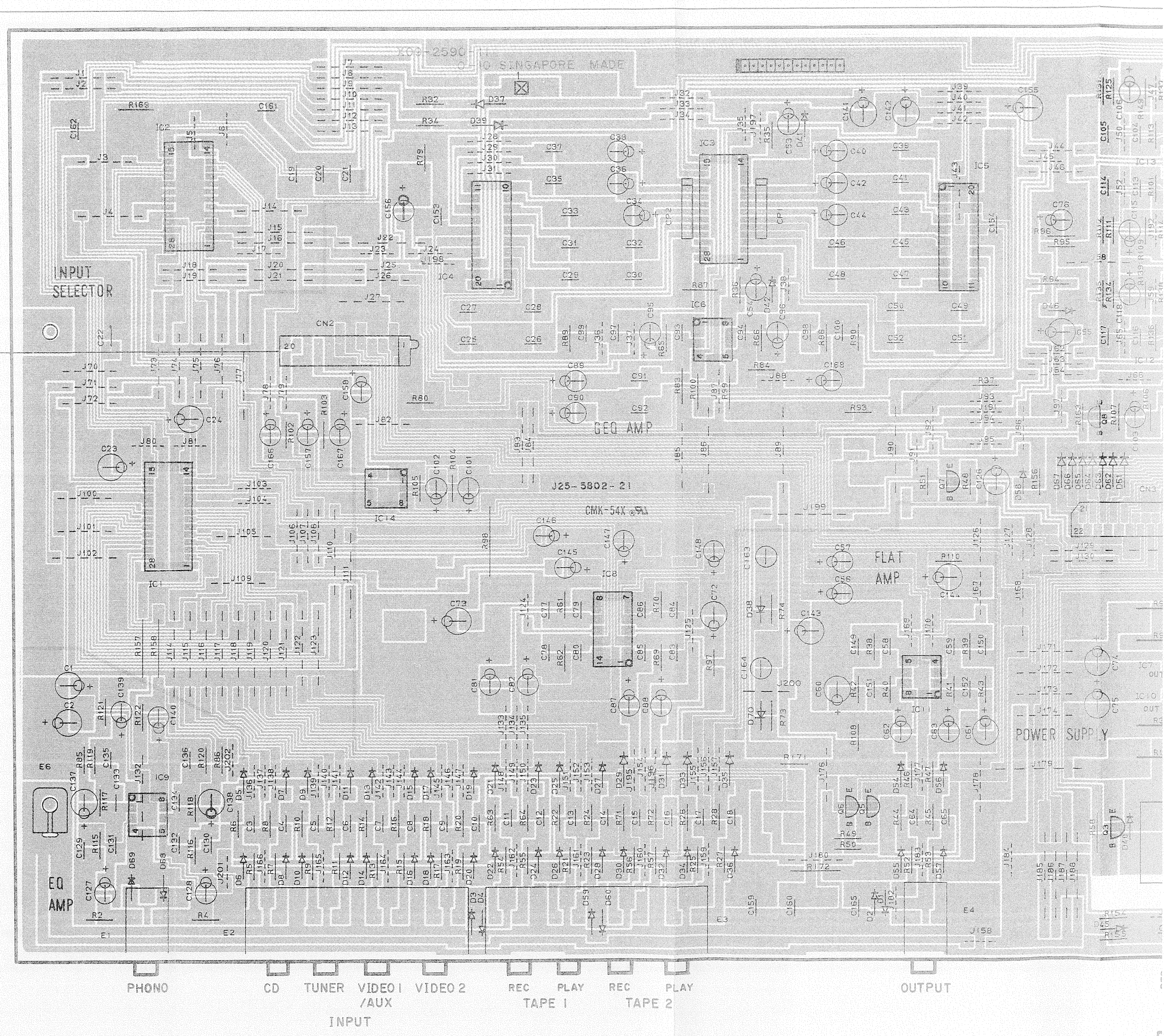
5	−25V
6	−25V

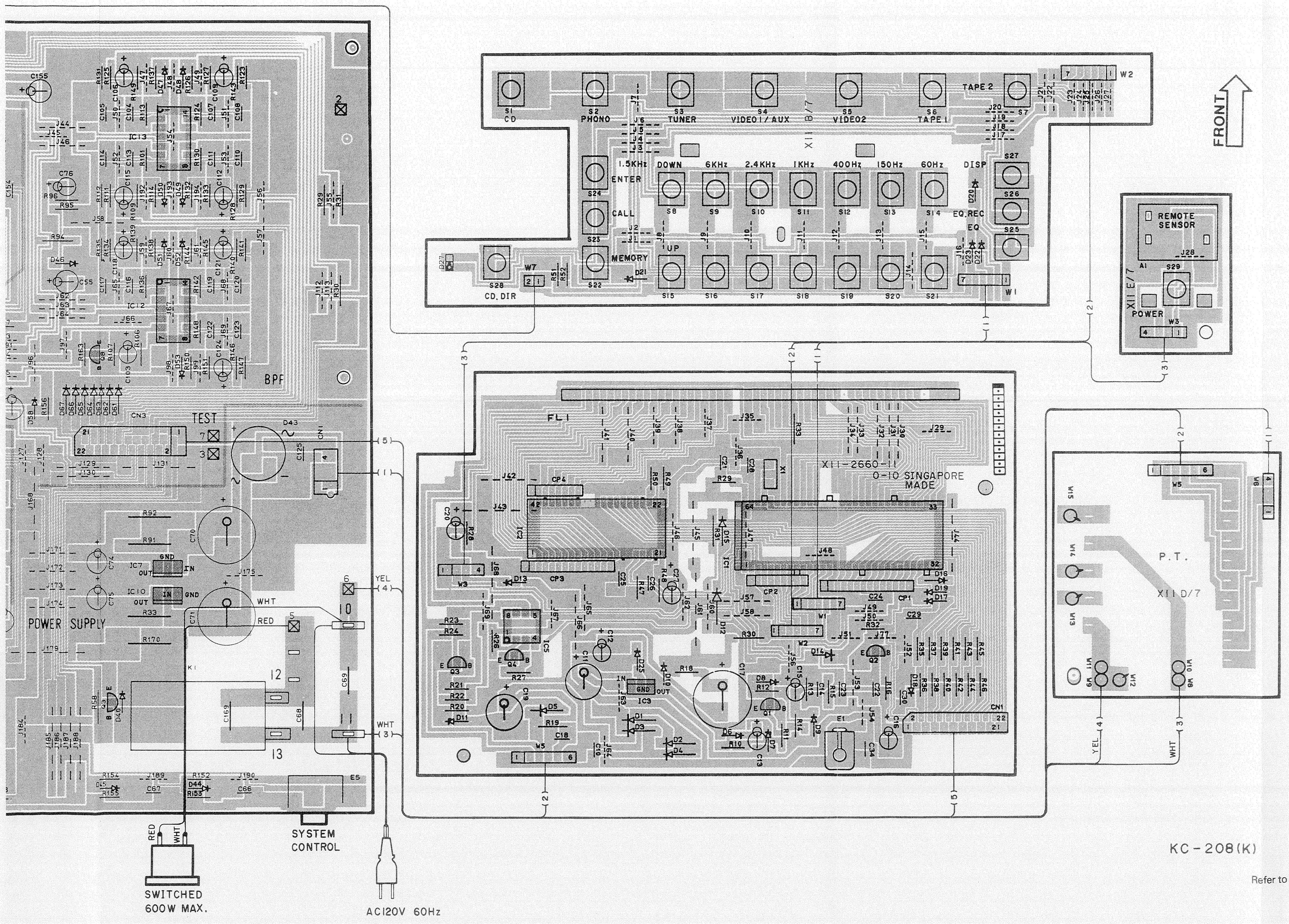
Q1

E	5.7V
C	5V
B	—

Q3

E	−31V
C	−25V
B	—


X09-2590
SINGAPORE MADE
INPUT SELECTOR
GEQ AMP
J25-5802-21
CMK-54X
FLAT AMP
POWER SUPPLY
EQ AMP
PHONO
CD
TUNER
VIDEO I /AUX
VIDEO 2
REC
PLAY
TAPE I
REC
PLAY
TAPE 2
INPUT
OUTPUT


BPF
TEST
CN3
POWER SUPPLY
SWITCHED
600W MAX.
SYSTEM
CONTROL
AC120V 60Hz
RED
WHT
YEL
FRONT
X11 B/7
CD
PHONO
TUNER
VIDEO1/AUX
VIDEO2
TAPE 1
TAPE 2
1.5KHz
DOWN
6KHz
2.4KHz
1KHz
400Hz
150Hz
60Hz
DISP
ENTER
CALL
MEMORY
UP
EQ.REC
EQ
CD.DIR
REMOTE
SENSOR
X11 E/7
POWER
FL1
X11-2660-11
0-10 SINGAPORE
MADE
P.T.
X11 D/7
KC-208(K)

X09-2590-10
X09-2590-11

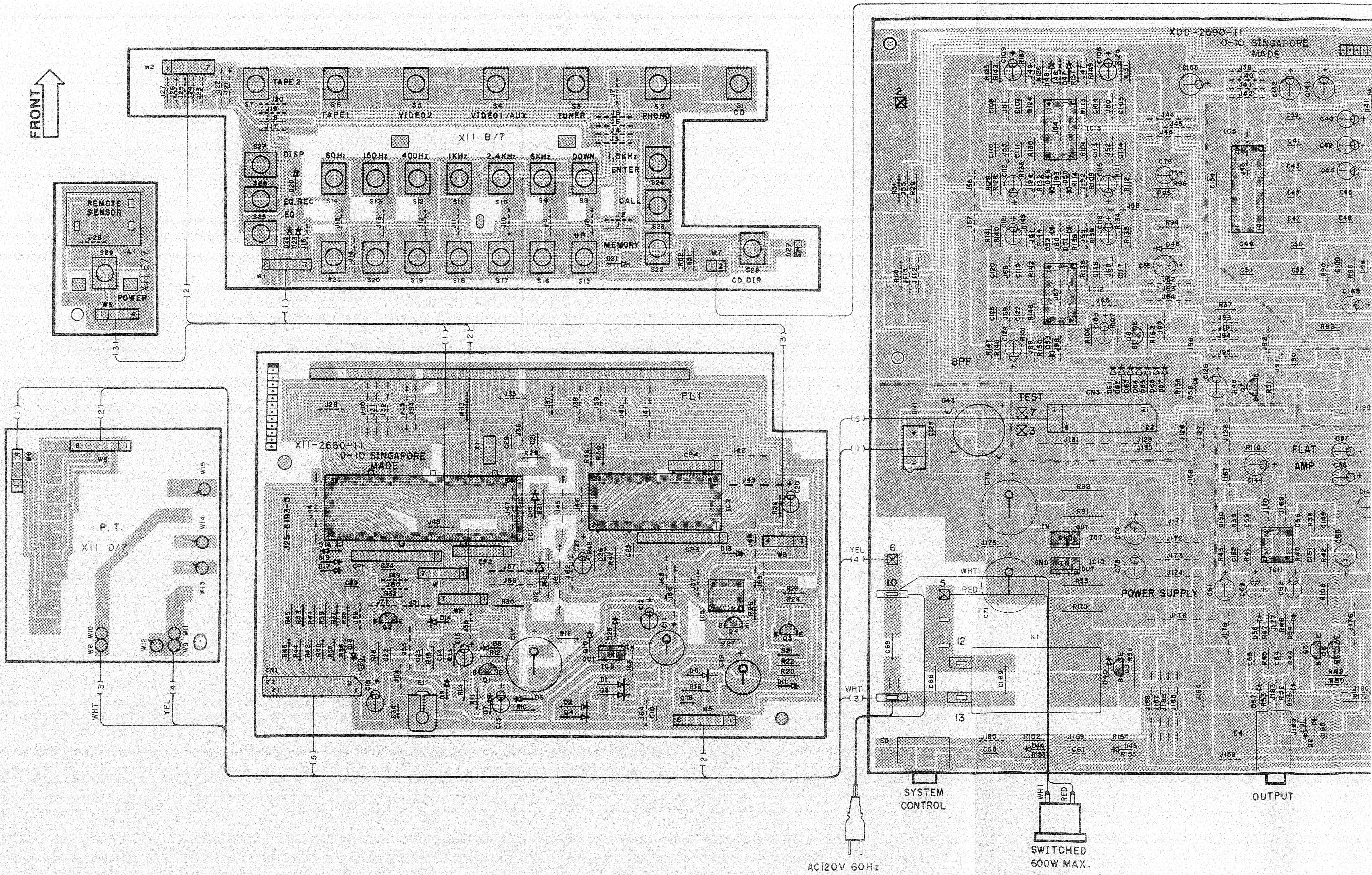
Ref. No.		Address
IC	Q	
	3	6K
	5	6I
	6	6I
	7	4J
	8	3J
1		4E
2		2E
3		2H
4		2G
5		2J
6		3H
7		5K
8		4H
9		6E
10		5K
11		5J
12		3K
13		2K
14		4G

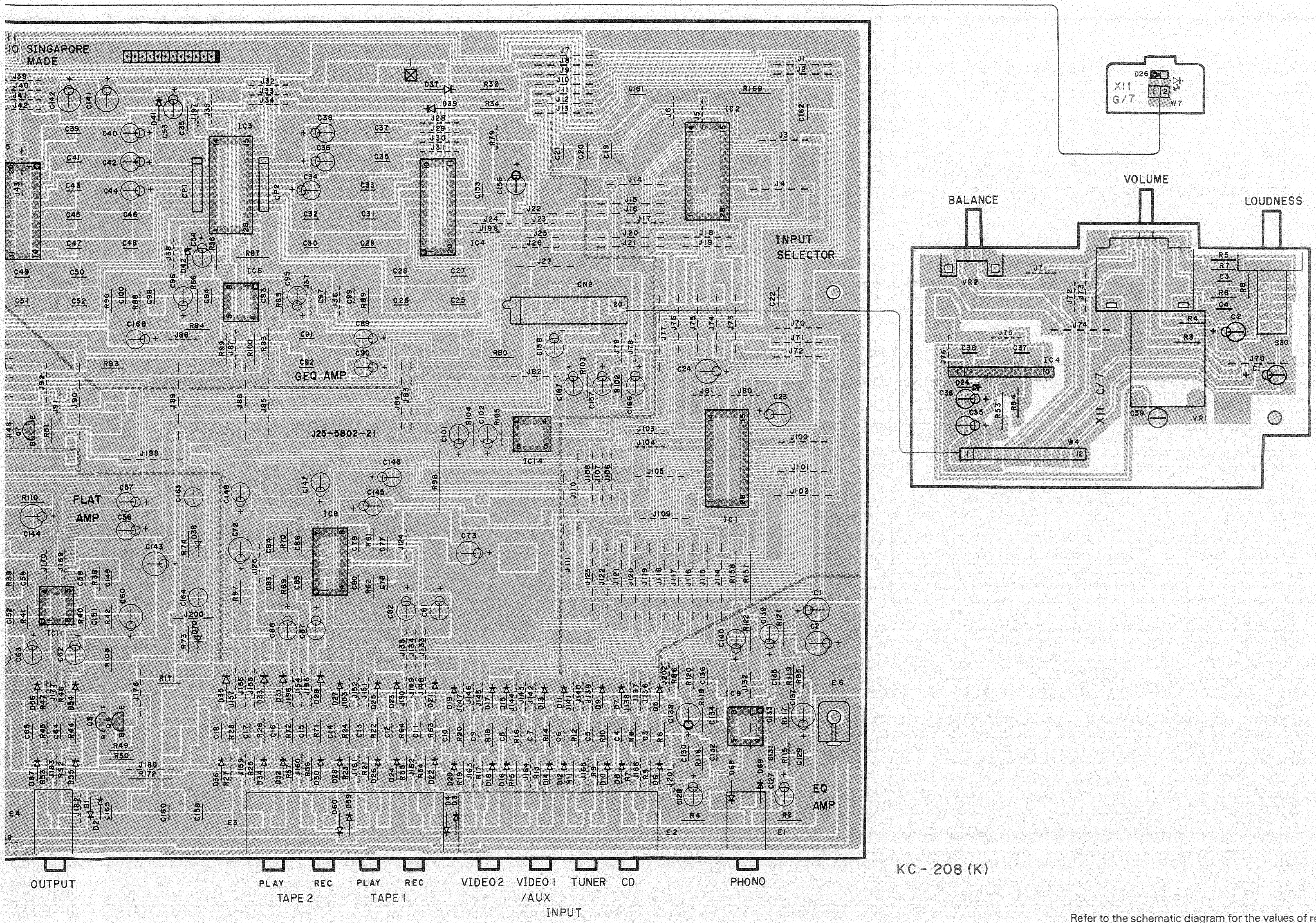
X11-2660-10
X11-2660-11

Ref. No.		Address
IC	Q	
	1	5O
	2	5O
	3	5M
	4	5M
1		4O
2		4N
3		5N
4		3D
5		5M

Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD (Foil Side View)


FRONT
X11 B/7
TAPE 2
TAPE1
VIDEO2
VIDEO1/AUX
TUNER
PHONO
CD
DISP
60Hz
150Hz
400Hz
1KHz
2.4KHz
6KHz
DOWN
1.5KHz
ENTER
CALL
UP
MEMORY
EQ.REC
EQ
CD.DIR
REMOTE SENSOR
POWER
X11 E/7
P.T.
X11 D/7
WHT
YEL
X11-2660-11
0-10 SINGAPORE MADE
J25-6193-01
FL1
IC1
IC2
IC3
IC5
X09-2590-11
0-10 SINGAPORE MADE
BPF
TEST
FLAT AMP
POWER SUPPLY
IC5
IC7
IC10
IC11
IC12
IC13
K1
GND
IN
OUT
RED
AC120V 60Hz
SYSTEM CONTROL
SWITCHED 600W MAX.
OUTPUT


SINGAPORE MADE
IC1
IC2
IC3
IC4
IC6
IC8
IC9
IC11
IC14
CN2
J25-5802-21
GEQ AMP
FLAT AMP
EQ AMP
INPUT SELECTOR
X11 G/7
X11 C/7
BALANCE
VOLUME
LOUDNESS
VR1
VR2
S30
OUTPUT
PLAY
REC
TAPE 2
PLAY
REC
TAPE 1
VIDEO2
VIDEO1 /AUX
TUNER
CD
INPUT
PHONO

KC - 208 (K)

X09-2590-10
X09-2590-11

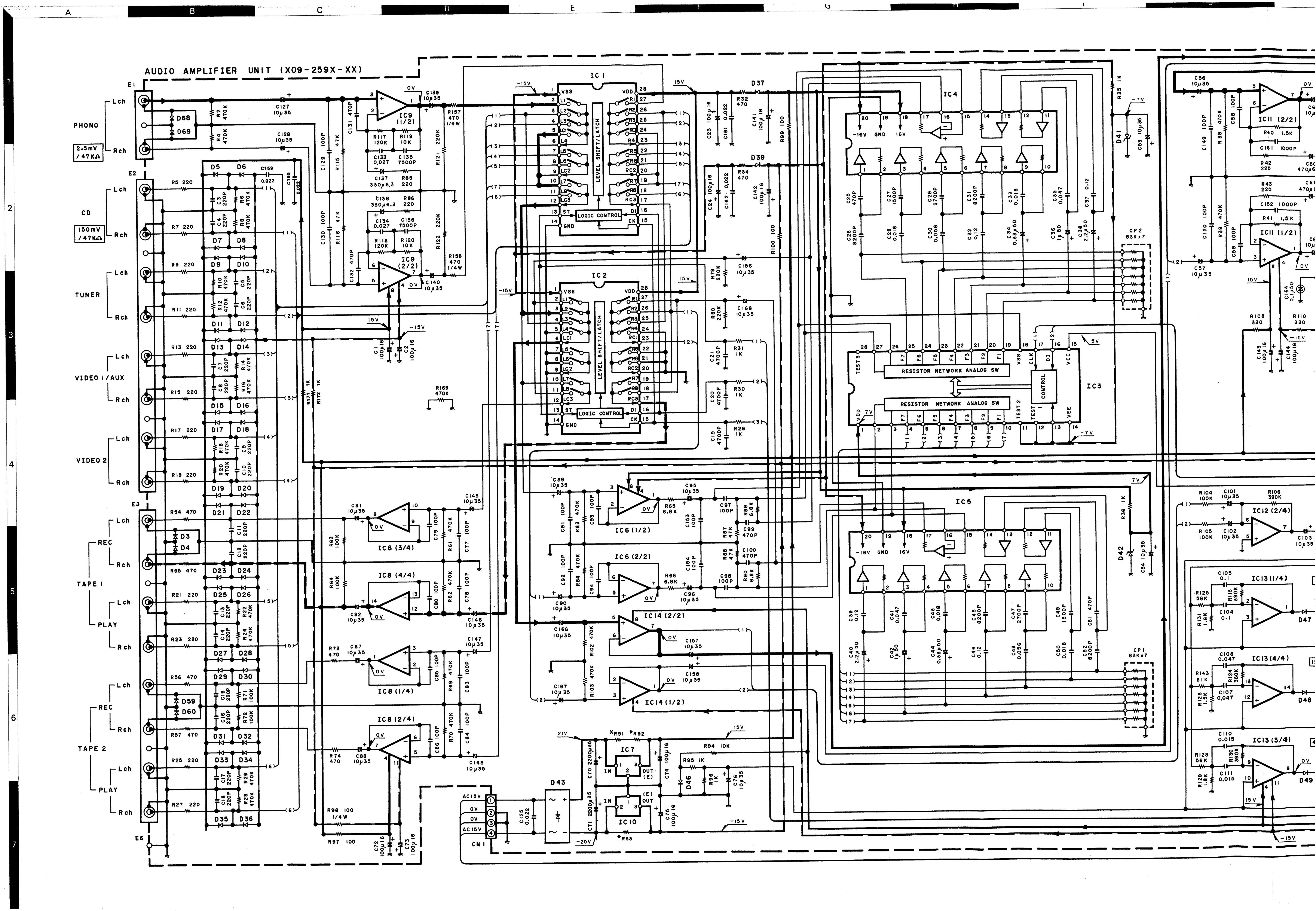
Ref. No.		Address
IC	Q	
	3	6AC
	5	6AE
	6	6AE
	7	4AD
	8	3AD
1		4AI
2		2AI
3		2AF
4		2AG
5		2AD
6		3AF
7		5AC
8		4AF
9		6AI
10		5AC
11		5AD
12		3AC
13		2AC
14		4AG

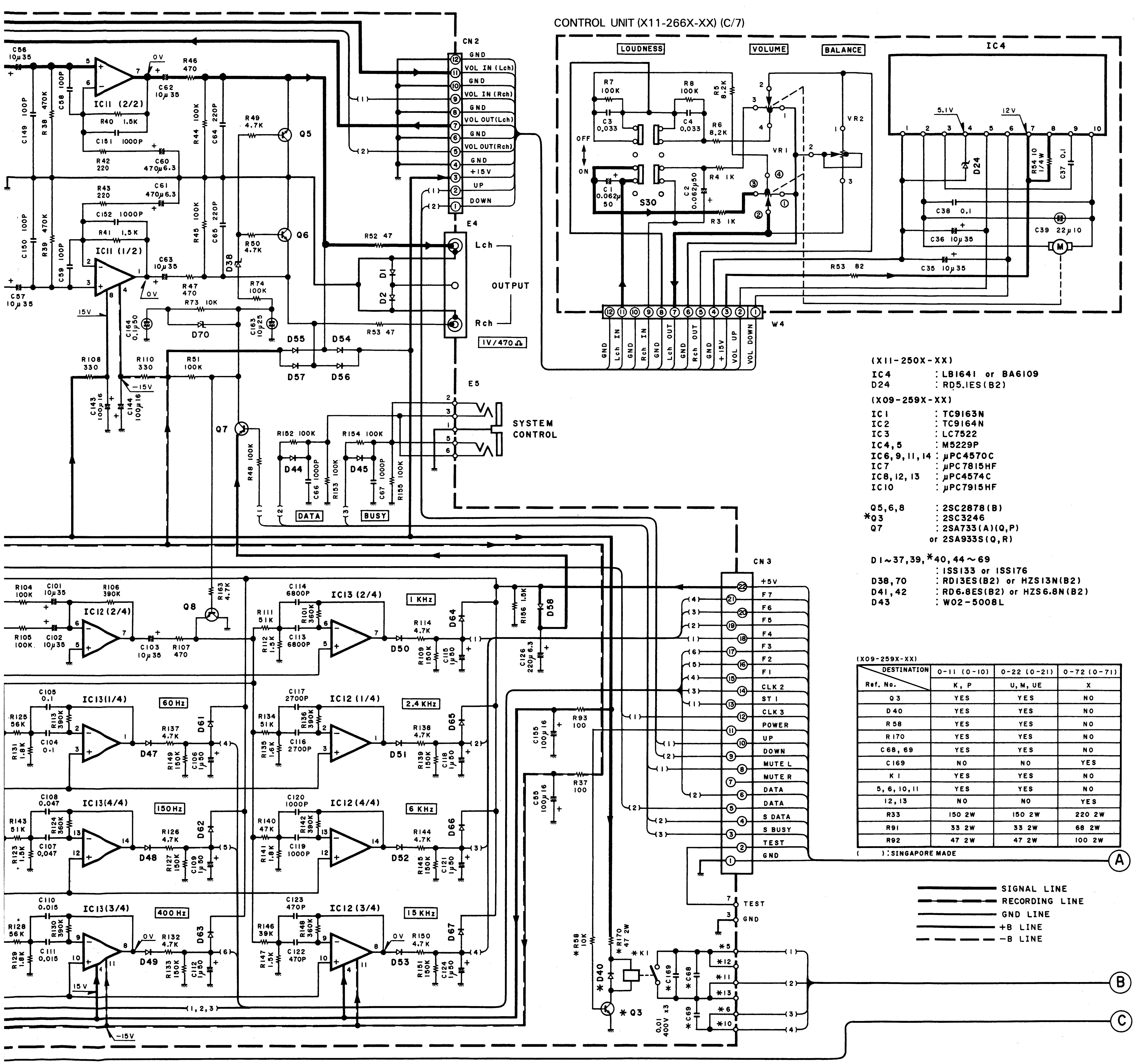
X11-2660-10
X11-2660-11

Ref. No.		Address
IC	Q	
	1	6Y
	2	5Y
	3	5AA
	4	5AA
1		5Y
2		4AA
3		6Z
4		3AJ
5		5AA

Refer to the schematic diagram for the values of resistors and capacitors.

AUDIO AMPLIFIER UNIT (X09-259X-XX)


A
B
C
D
E
F
G
H
1
2
3
4
5
6
7
E1
PHONO
2.5mV /47KΩ
Lch
Rch
D68
D69
E2
CD
150mV /47KΩ
TUNER
VIDEO 1/AUX
VIDEO 2
E3
TAPE 1
REC
PLAY
TAPE 2
E6
IC9 (1/2)
IC9 (2/2)
IC1
IC2
LEVEL SHIFT/LATCH
LOGIC CONTROL
VSS
VDD
GND
ST
CK
DI
D37
D39
IC4
IC3
RESISTOR NETWORK ANALOG SW
CONTROL
TEST
VCC
VEE
CLK
IC5
CP1 83Kx7
CP2 83Kx7
D41
D42
IC6 (1/2)
IC6 (2/2)
IC8 (1/4)
IC8 (2/4)
IC8 (3/4)
IC8 (4/4)
IC14 (1/2)
IC14 (2/2)
IC7
IC10
D43
D46
CN1
AC15V
0V
IN
OUT
(E)
IC11 (1/2)
IC11 (2/2)
IC12 (2/4)
IC13 (1/4)
IC13 (3/4)
IC13 (4/4)
D47
D48
D49
15V
-15V
21V
-20V
7V
5V
-7V
-16V
16V
*R91
*R92
*R33


CONTROL UNIT (X11-266X-XX) (C/7)
LOUDNESS
VOLUME
BALANCE
IC4
S30
VR1
VR2
OFF
ON
W4
GND
Lch IN
Rch IN
Lch OUT
Rch OUT
+15V
VOL UP
VOL DOWN
CN2
GND
VOL IN (Lch)
VOL IN (Rch)
VOL OUT (Lch)
VOL OUT (Rch)
+15V
UP
DOWN
IC11 (2/2)
IC11 (1/2)
Q5
Q6
Q7
Q8
E4
Lch
Rch
OUTPUT
1V/470Ω
E5
SYSTEM CONTROL
DATA
BUSY
CN3
+5V
F7
F6
F5
F4
F2
F3
F1
CLK 2
ST I
CLK 3
POWER
UP
DOWN
MUTE L
MUTE R
DATA
S DATA
S BUSY
TEST
GND
IC12 (2/4)
IC13 (2/4)
1 KHz
IC13 (1/4)
60 Hz
IC12 (1/4)
2.4 KHz
IC13 (4/4)
150 Hz
IC12 (4/4)
6 KHz
IC13 (3/4)
400 Hz
IC12 (3/4)
15 KHz
*K1
*Q3
*D40
A
B
C

(X11-250X-XX)
IC4 : LB1641 or BA6109
D24 : RD5.1ES(B2)

(X09-259X-XX)
IC1 : TC9163N
IC2 : TC9164N
IC3 : LC7522
IC4,5 : M5229P
IC6,9,11,14 : μPC4570C
IC7 : μPC7815HF
IC8,12,13 : μPC4574C
IC10 : μPC7915HF

Q5,6,8 : 2SC2878(B)
*Q3 : 2SC3246
Q7 : 2SA733(A)(Q,P)
or 2SA933S(Q,R)

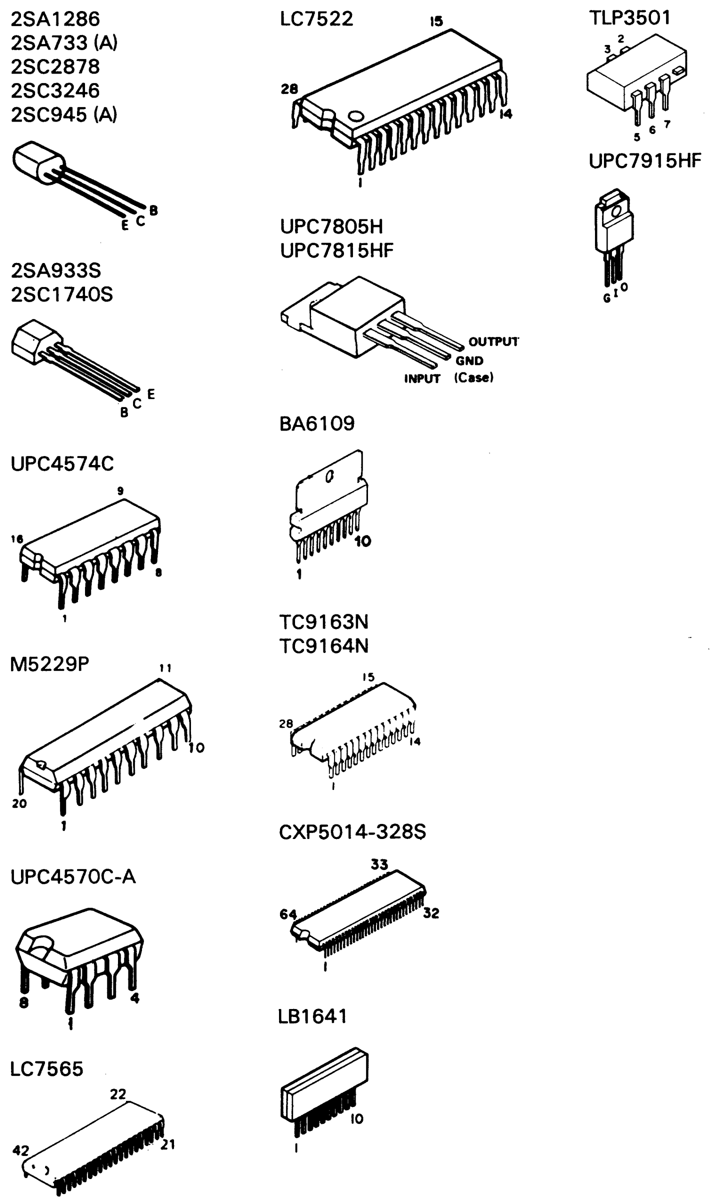
D1～37,39,*40,44～69
: 1SS133 or 1SS176
D38,70 : RD13ES(B2) or HZS13N(B2)
D41,42 : RD6.8ES(B2) or HZS6.8N(B2)
D43 : W02-5008L

(X09-259X-XX)

Ref. No. \ DESTINATION	0-11 (0-10)	0-22 (0-21)	0-72 (0-71)
	K, P	U, M, UE	X
Q3	YES	YES	NO
D40	YES	YES	NO
R58	YES	YES	NO
R170	YES	YES	NO
C68, 69	YES	YES	NO
C169	NO	NO	YES
K1	YES	YES	NO
5, 6, 10, 11	YES	YES	NO
12, 13	NO	NO	YES
R33	150 2W	150 2W	220 2W
R91	33 2W	33 2W	68 2W
R92	47 2W	47 2W	100 2W

( ) : SINGAPORE MADE

━━━━ SIGNAL LINE
━ ━ ━ RECORDING LINE
──── GND LINE
──── +B LINE
— — — −B LINE


2SA1286
2SA733 (A)
2SC2878
2SC3246
2SC945 (A)
E C B
LC7522
28
15
1
14
TLP3501
UPC7915HF
G I O
UPC7805H
UPC7815HF
OUTPUT
GND
INPUT (Case)
2SA933S
2SC1740S
B C E
BA6109
1
10
UPC4574C
16
9
1
8
TC9163N
TC9164N
M5229P
20
11
10
1
CXP5014-328S
33
64
32
1
UPC4570C-A
8
4
1
LB1641
LC7565
42
22
21
1

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

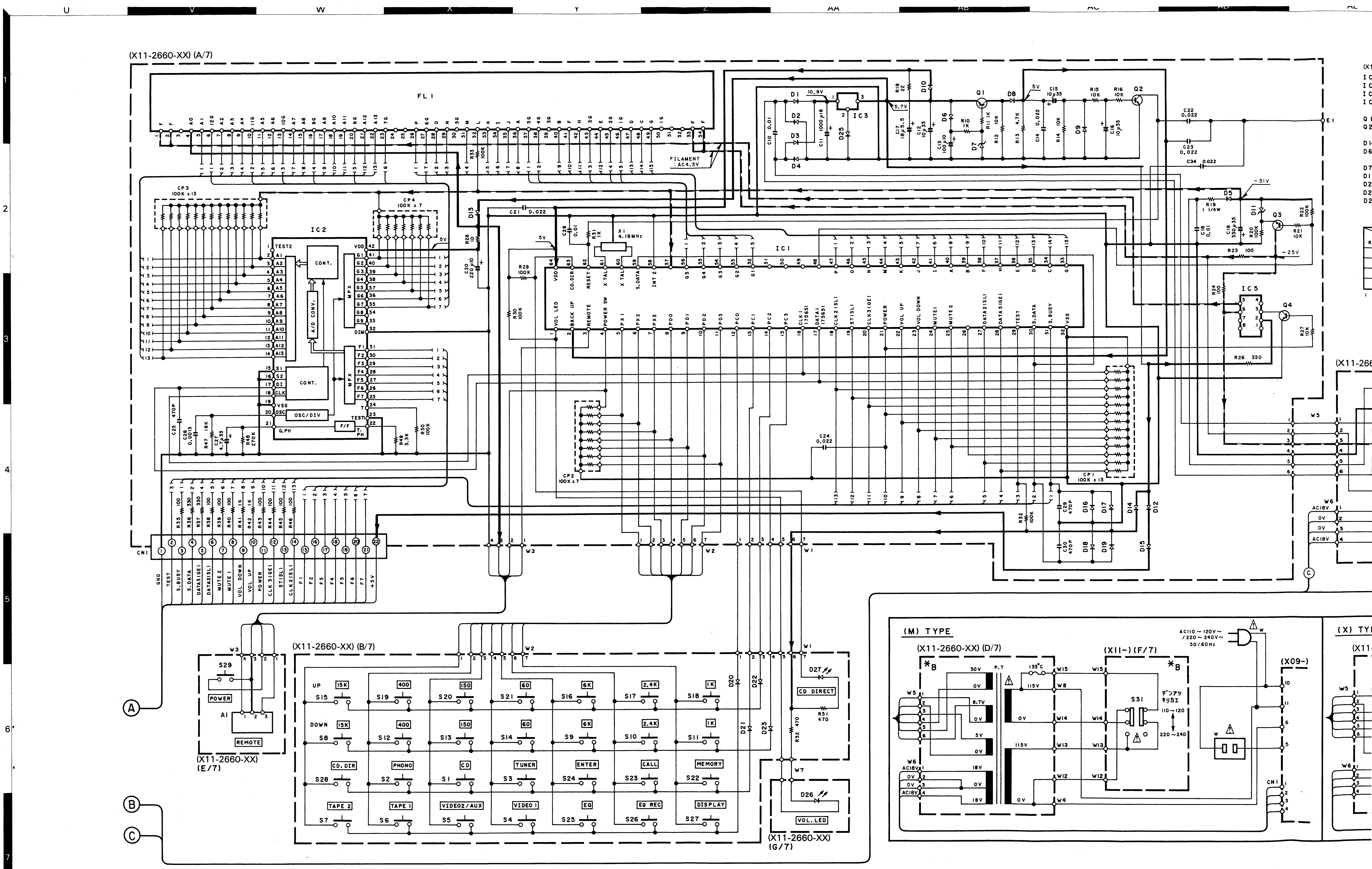
DC voltages are as measured with a high impedance voltmeter with a cassette loaded at playback mode. Values may vary slightly due to variations between individual instruments or/and units. Bias circuit DC voltages are as measured while in the record mode.

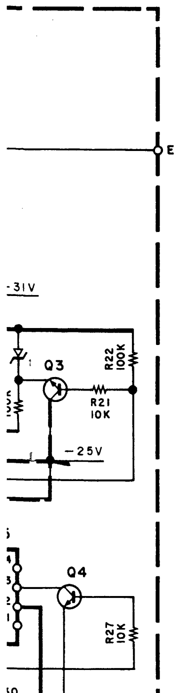
Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance, une cassette étant insérée en mode du lecture. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.
Les tensions c.c. du circuit de polarité doivent être mesurées, l'appareil étant en mode d'enregistrement.

Die angegebenen Gleichspannungswerte wurden bei eingesetzter Cassette in der Wiedergabe mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig. Die angegebenen Gleichspannungswerte der Vormagnetisierungsschaltung wurden in der Aufnahme-Betriebsart gemessen.

Y08-3740-10

KC-208
KENWOOD


U
V
W
X
Y
Z
AA
AB
AC
AD
AE
1
2
3
4
5
6
7
(X11-2660-XX) (A/7)
FL1
FILAMENT : AC4.3V
CP3 100K x 13
CP4 100K x 7
IC2
TEST2
CONT.
A/D CONV.
MPX
OSC/DIV
F/F
G.PH
T.PH
TEST
DIM
VDD
VSS
OSC
CLK
DI
C25 470P
C26 0.0015
R47 18K
C27 4.7μ35
R48 270K
R49 3.3K
R50 100K
C21 0.022
C20 220μ10
R28 10
D13
R33 100K
5V
R29 100K
R30 100K
C28 0.01
R31 1K
X1 4.19MHz
IC1
VDD
CD.DIR
RESET
X TAL
X TAL
S.DATA
INT 2
VOL LED
BACK UP
REMOTE
POWER SW
PX1
PX2
PX3
PD0
PD1
PD2
PD3
PC0
PC1
PC2
PC3
CLK1 (7565)
DATA1 (7565)
CLK2(SL)
ST(SL)
CLK3(GE)
POWER
VOL UP
VOL DOWN
MUTE1
MUTE2
DATA2(SL)
DATA3(GE)
TEST
S.DATA
S.BUSY
VSS
C24 0.022
CP2 100K x 7
CP1 100K x 13
R32 100K
C29 470P
C30 470P
D16
D17
D18
D19
D14
D12
D15
D1
D2
D3
D4
10.9V
C10 0.01
C11 1000μ16
D25
IC3
5.7V
R18 22
D10
C17 18μ5.5
C12 10μ35
C13 100μ10
D6
D7
R10 1K
R11 1K
Q1
D8
5V
R12 10K
R13 4.7K
C14 0.022
C15 10μ35
R14 10K
D9
R15 10K
R16 10K
C16 10μ35
Q2
C22 0.022
C23 0.022
C34 0.022
E1
-31V
R19 1 1/4W
D5
D11
C18 0.01
C19 330μ35
R20 100K
Q3
R21 10K
R22 100K
R23 100
-25V
R24 100
IC5
Q4
R27 10K
R26 330
W5
W6
AC18V
0V
0V
AC18V
CN1
GND
TEST
S.BUSY
S.DATA
DATA3(GE)
DATA2(SL)
MUTE 2
MUTE 1
VOL DOWN
VOL UP
POWER
CLK 3(GE)
ST(SL)
CLK2(SL)
F1
F2
F3
F4
F5
F6
F7
+5V
R35 100
R36 330
R37 330
R38 100
R39 100
R40 100
R41 1K
R42 1K
R43 100
R44 100
R45 100
R46 100
W3
W2
W1
A
B
C
S29
POWER
A1
REMOTE
(X11-2660-XX) (E/7)
(X11-2660-XX) (B/7)
UP
DOWN
15K
400
150
60
6K
2.4K
1K
S15
S19
S20
S21
S16
S17
S18
S8
S12
S13
S14
S9
S10
S11
CD.DIR
PHONO
CD
TUNER
ENTER
CALL
MEMORY
S28
S2
S1
S3
S24
S23
S22
TAPE 2
TAPE 1
VIDEO2/AUX
VIDEO 1
EQ
EQ REC
DISPLAY
S7
S6
S5
S4
S25
S26
S27
D20
D22
D21
D23
D27
CD DIRECT
R51 470
R52 470
W7
D26
VOL.LED
(X11-2660-XX) (G/7)
(M) TYPE
(X11-2660-XX) (D/7)
*B
30V
0V
8.7V
0V
5V
0V
18V
0V
18V
P.T
135°C
115V
0V
115V
0V
W15
W8
W14
W13
W12
W9
(X11-) (F/7)
S31
デンアツ キリカエ
110～120
220～240
AC110～120V～ /220～240V～ 50/60Hz
W
(X09-)
10
11
6
5
CN1
(X) TYPE
(X11-


E1
-31V
Q3
R22
100K
R21
10K
-25V
5
Q4
R27
10K
10

(X11-266X-XX)

IC1 : CXP5014-328S
IC2 : LC7565
IC3 : μPC7805H
IC5 : TLP3501

Q1 : 2SA1286
Q2 ~ 4 : 2SC945(A)(Q,P) or 2SC1740S(Q,R)

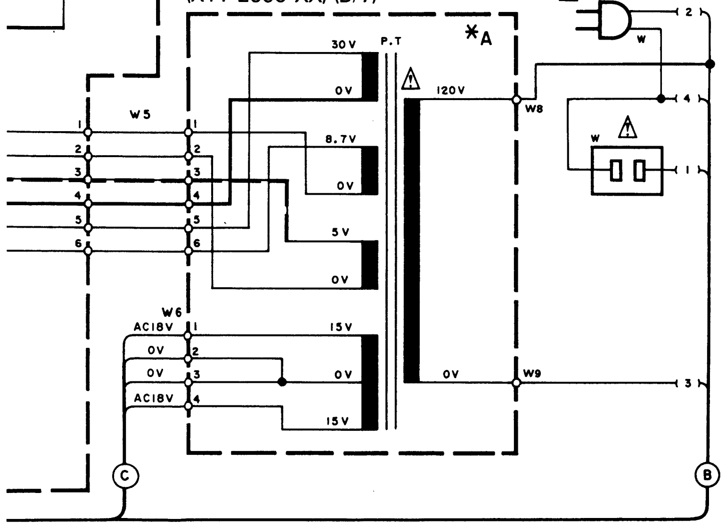
D1~5 : DSM1A1 or S5566B
D6, 8 ~ 10, 12 ~ 23, 25
: 1SS133 or 1SS176
D7 : RD3.9ES(B2) or HZS3.9N(B2)
D11 : RD6.8ES(B2) or HZS6.8N(B2)
D24 : RD5.1ES(B2) or HZS5.1N(B2)
D26 : B30-1012-05
D27 : B30-1223-05

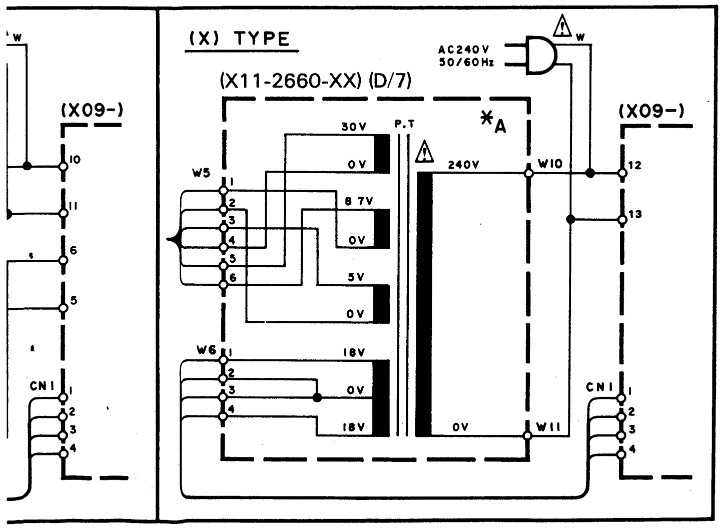
DESTINATION / Ref. No.	0-11(0-10)	0-22(0-21)	0-72(0-71)
	K, P	U, M, UE	X
A	YES	NO	YES
B	NO	YES	NO
W8, 9	YES	NO	NO
W10, 11	NO	NO	YES

( ) : SINGAPORE MADE

——— GND LINE
━━━ +B LINE
— — — –B LINE

(X11-2660-XX) (D/7)


AC120V
60Hz
*A
P.T
30V
0V
8.7V
0V
5V
0V
15V
0V
15V
120V
0V
W5
W6
W8
W9
W
AC18V
0V
0V
AC18V
1
2
3
4
5
6
2
4
1
3
C
B


(X) TYPE
(X11-2660-XX) (D/7)
AC240V
50/60Hz
W
*A
P.T
30V
0V
8.7V
0V
5V
0V
18V
0V
18V
240V
0V
W5
W6
W10
W11
(X09-)
(X09-)
10
11
6
5
12
13
CN1
CN1
1
2
3
4

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). **⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.**

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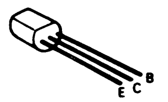
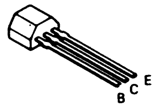
Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance, une cassette étant insérée en mode du lecture. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.
Les tensions c.c. du circuit de polarité doivent être mesurées, l'appareil étant en mode d'enregistrement.

Die angegebenen Gleichspannungswerte wurden bei eingesetzter Cassette in der Wiedergabe mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig. Die angegebenen Gleichspannungswerte der Vormagnetisierungsschaltung wurden in der Aufnahme-Betriebsart gemessen.

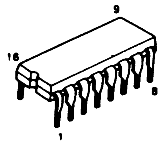
2SA1286
2SA733 (A)
2SC2878
2SC3246
2SC945 (A)



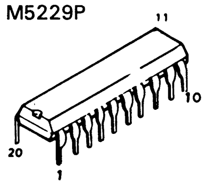
2SA933S
2SC1740S



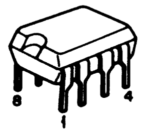
UPC4574C



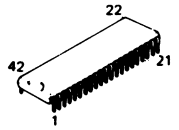
M5229P



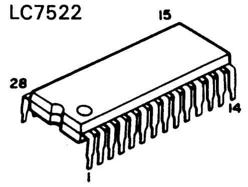
UPC4570C-A



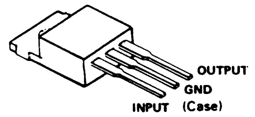
LC7565



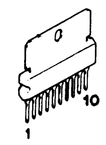
LC7522



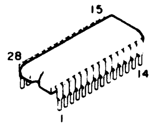
UPC7805H
UPC7815HF


OUTPUT
GND
INPUT (Case)

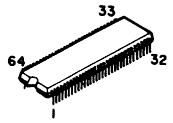
BA6109



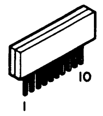
TC9163N
TC9164N



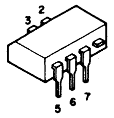
CXP5014-328S



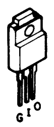
LB1641



TLP3501



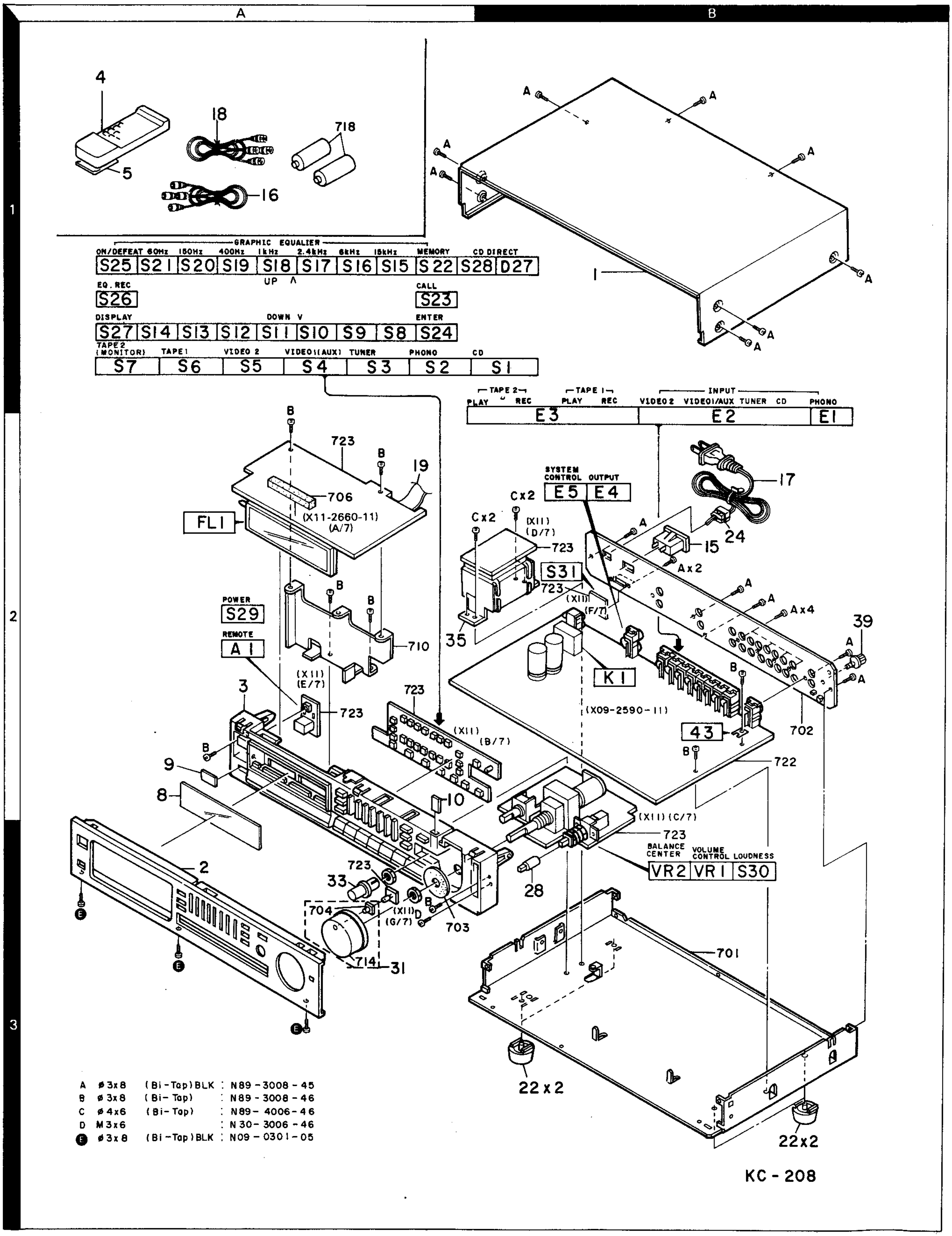
UPC7915HF



Y08-3740-10

KC-208
KENWOOD

EXPLODED VIEW


A
B
1
2
3
4
5
18
718
16
GRAPHIC EQUALIER
ON/DEFEAT 60Hz
150Hz
400Hz
1kHz
2.4kHz
6kHz
15kHz
MEMORY
CD DIRECT
S25
S21
S20
S19
S18
S17
S16
S15
S22
S28
D27
UP ∧
EQ.REC
S26
CALL
S23
DISPLAY
DOWN V
ENTER
S27
S14
S13
S12
S11
S10
S9
S8
S24
TAPE 2 (MONITOR)
TAPE 1
VIDEO 2
VIDEO 1(AUX)
TUNER
PHONO
CD
S7
S6
S5
S4
S3
S2
S1
TAPE 2
PLAY
REC
TAPE 1
PLAY
REC
INPUT
VIDEO 2
VIDEO 1/AUX
TUNER
CD
PHONO
E3
E2
E1
A
1
B
723
B
19
706
(X11-2660-11)
(A/7)
FL1
17
SYSTEM CONTROL
OUTPUT
E5
E4
C x2
C x2
(X11)
(D/7)
723
A
15
24
A x2
S31
723
(X11)
(F/7)
A
A
A x4
39
A
A
35
B
B
710
POWER
S29
REMOTE
A1
K1
(X09-2590-11)
B
702
43
B
722
(X11)
(E/7)
723
3
723
(X11)
(B/7)
B
723
9
8
10
(X11)(C/7)
723
BALANCE CENTER
VOLUME CONTROL
LOUDNESS
VR2
VR1
S30
2
723
33
28
704
(X11)
(G/7)
D
B
703
714
31
701
E
E
E
22 x 2
22x2
KC-208

A	ø3x8	(Bi-Tap)BLK	: N89-3008-45
B	ø3x8	(Bi-Tap)	: N89-3008-46
C	ø4x6	(Bi-Tap)	: N89-4006-46
D	M3x6		: N30-3006-46
E	ø3x8	(Bi-Tap)BLK	: N09-0301-05

Parts with the exploded numbers larger than 700 are not supplied.

KC-208

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Ref. No. 参照番号	Address 位　置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕　向	Remarks 備考
				KC-208		
1	1B	＊	A01-1761-01	METALLIC CABINET		
2	3A	＊	A20-5753-02	PANEL		
3	2A	＊	A22-1075-01	SUB PANEL		
4	1A		A70-0260-05	REMOTE CONTROLLER ASSY	KUUE	
4	1A		A70-0261-05	REMOTE CONTROLLER ASSY	PM	
4	1A		A70-0262-05	REMOTE CONTROLLER ASSY	X	
5	1A		A09-0088-08	BATTERY COVER(REMOTE CON)		
8	2A		B03-2516-04	DRESSING PLATE		
9	2A		B03-2417-04	DRESSING PLATE (REMOT SENCER)		
10	3A		B03-2418-04	DRESSING PLATE (CD DIRECT)		
-			B46-0092-03	WARRANTY CARD	K	
-			B46-0094-03	WARRANTY CARD	UUE	
-			B46-0095-03	WARRANTY CARD	UUE	
-			B46-0096-13	WARRANTY CARD	X	
-			B46-0121-03	WARRANTY CARD	P	
-		＊	B50-9619-00	INSTRUCTION MANUAL(ENGLISH)		
-		＊	B50-9620-00	INSTRUCTION MANUAL(FRANCH)	PM	
-		＊	B50-9621-00	INSTRUCTION MANUAL(SPA,ARA,CHI	M	
-			B58-0223-04	CAUTION CARD (PRE-SET 120V)	U	
-			B58-0513-04	CAUTION CARD (PRESET220-240)	UE	
⚠ 15	2B		E03-0041-05	AC OUTLET	KPUUEM	
16	1A		E30-0615-05	AUDIO CORD		
⚠ 17	2B		E30-0812-05	AC POWER CORD	UUEM	
⚠ 17	2B		E30-0996-05	AC POWER CORD	KP	
⚠ 17	2B		E30-1341-05	AC POWER CORD	X	
18	1A		E30-1392-05	CORD WITH PLUG		
19	2A	＊	E31-4334-05	WIRING HARNESS		
-		＊	H01-8510-04	ITEM CARTON CASE		
-			H10-3631-02	POLYSTYRENE FOAMED FIXTURE		
-			H10-3632-02	POLYSTYRENE FOAMED FIXTURE		
-			H25-0148-04	PROTECTION BAG (110X230X0.07)		
-			H25-0223-04	PROTECTION BAG (750X350X0.03)		
-			H25-0232-04	PROTECTION BAG (235X350X0.03)		
22	3B		J02-0366-15	FOOT		
⚠ 24	2B		J42-0083-05	POWER CORD BUSHING		
-			J61-0307-05	WIRE BAND		
28	3B		K27-1853-04	KNOB (BUTTON)		
31	3A	＊	K29-3585-04	KNOB ASSY (VOL CONTROL)		
33	3A		K29-3632-04	KNOB (BALANCE)		
35	2A		L01-5071-05	POWER TRANSFORMER	KP	
35	2A		L01-5072-05	POWER TRANSFORMER	X	
35	2A		L01-5074-05	POWER TRANSFORMER	UUEM	
39	2B		N08-0128-35	BINDING POST (GND)		
E	3A		N09-0301-05	TAPTITE SCREW (3X8)		
				AUDIO UNIT (X09-2590-10: K, P, 0-21: U, UE, M, 0-71: X)		
C1 ,2			CE04LW1C101M	ELECTRO 100UF 16WV		
C3 -18			CC45FSL1H221J	CERAMIC 220PF J		
C19 -22			CK45FF1H472Z	CERAMIC 4700PF Z		
C23 ,24			CE04LW1C101M	ELECTRO 100UF 16WV		
C25			CK45FB1H471K	CERAMIC 470PF K		

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C26			CF92FV1H822J	MF 8200PF J		
C27			CF92FV1H152J	MF 1500PF J		
C28			CF92FV1H183J	MF 0.018UF J		
C29			CF92FV1H272J	MF 2700PF J		
C30			CF92FV1H563J	MF 0.056UF J		
C31			CF92FV1H822J	MF 8200PF J		
C32			CF92FV1H124J	MF 0.12UF J		
C33			CF92FV1H183J	MF 0.018UF J		
C34			CE04LW1HR33M	ELECTRO 0.33UF 50WV		
C35			CF92FV1H473J	MF 0.047UF J		
C36			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C37			CF92FV1H124J	MF 0.12UF J		
C38			CE04LW1H2R2M	ELECTRO 2.2UF 50WV		
C39			CF92FV1H124J	MF 0.12UF J		
C40			CE04LW1H2R2M	ELECTRO 2.2UF 50WV		
C41			CF92FV1H473J	MF 0.047UF J		
C42			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C43			CF92FV1H183J	MF 0.018UF J		
C44			CE04LW1HR33M	ELECTRO 0.33UF 50WV		
C45			CF92FV1H822J	MF 8200PF J		
C46			CF92FV1H124J	MF 0.12UF J		
C47			CF92FV1H272J	MF 2700PF J		
C48			CF92FV1H563J	MF 0.056UF J		
C49			CF92FV1H152J	MF 1500PF J		
C50			CF92FV1H183J	MF 0.018UF J		
C51			CK45FB1H471K	CERAMIC 470PF K		
C52			CF92FV1H822J	MF 8200PF J		
C53 ,54			CE04LW1V100M	ELECTRO 10UF 35WV		
C55			CE04LW1C101M	ELECTRO 100UF 16WV		
C56 ,57			CE04LW1V100M	ELECTRO 10UF 35WV		
C58 ,59			CC45FSL1H101J	CERAMIC 100PF J		
C60 ,61			CE04LW0J471M	ELECTRO 470UF 6.3WV		
C62 ,63			CE04LW1V100M	ELECTRO 10UF 35WV		
C64 ,65			CC45FSL1H221J	CERAMIC 220PF J		
C66 ,67			CK45FB1H102K	CERAMIC 1000PF K		
⚠ C68 ,69			C91-0647-05	CERAMIC 0.01UF P	KPUUEM	
C70 ,71		⁎	CE04LW1V222M	ELECTRO 2200UF 35WV		
C72 -75			CE04LW1C101M	ELECTRO 100UF 16WV		
C76			CE04LW1V100M	ELECTRO 10UF 35WV		
C77 -80			CC45FSL1H101J	CERAMIC 100PF J		
C81 ,82			CE04LW1V100M	ELECTRO 10UF 35WV		
C83 -86			CC45FSL1H101J	CERAMIC 100PF J		
C87 -90			CE04LW1V100M	ELECTRO 10UF 35WV		
C91 -94			CC45FSL1H101J	CERAMIC 100PF J		
C95 ,96			CE04LW1V100M	ELECTRO 10UF 35WV		
C97 ,98			CC45FSL1H101J	CERAMIC 100PF J		
C99 ,100			CK45FB1H471K	CERAMIC 470PF K		
C101-103			CE04LW1V100M	ELECTRO 10UF 35WV		
C104,105			CF92FV1H104J	MF 0.10UF J		
C106			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C107,108			CF92FV1H473J	MF 0.047UF J		
C109			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C110,111			CF92FV1H153J	MF 0.015UF J		
C112			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C113,114			CF92FV1H682J	MF 6800PF J		

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KC-208

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	Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Desti- nation 仕向	Re- marks 備考
	C115			CE04LW1H010M	ELECTRO 1. 0UF 50WV		
	C116,117			CF92FV1H272J	MF 2700PF J		
	C118			CE04LW1H010M	ELECTRO 1. 0UF 50WV		
	C119,120			CF92FV1H102J	MF 1000PF J		
	C121			CE04LW1H010M	ELECTRO 1. 0UF 50WV		
	C122,123			CK45FB1H471K	CERAMIC 470PF K		
	C124			CE04LW1H010M	ELECTRO 1. 0UF 50WV		
	C125			CK45FF1H223Z	CERAMIC 0. 022UF Z		
	C126			CE04LW0J221M	ELECTRO 220UF 6. 3WV		
	C127,128			CE04LW1V100M	ELECTRO 10UF 35WV		
	C129,130			CC45FSL1H101J	CERAMIC 100PF J		
	C131,132			CK45FB1H471K	CERAMIC 470PF K		
	C133,134			CF92FV1H273J	MF 0. 027UF J		
	C135,136			CF92FV1H752J	MF 7500PF J		
	C137			CE04LW0J331M	ELECTRO 330UF 6. 3WV		
	C138		*	CE04LW0J331M	ELECTRO 330UF 6. 3WV		
	C139,140			CE04LW1V100M	ELECTRO 10UF 35WV		
	C141-144			CE04LW1C101M	ELECTRO 100UF 16WV		
	C145-148			CE04LW1V100M	ELECTRO 10UF 35WV		
	C149,150			CC45FSL1H101J	CERAMIC 100PF J		
	C151,152			CK45FB1H102K	CERAMIC 1000PF K		
	C153,154			CC45FSL1H101J	CERAMIC 100PF J		
	C155			CE04LW1C101M	ELECTRO 100UF 16WV		
	C156			CE04JW1V100M	ELECTRO 10UF 35WV		
	C157,158			CE04LW1V100M	ELECTRO 10UF 35WV		
	C159-162			CK45FF1H223Z	CERAMIC 0. 022UF Z		
	C163			C90-1332-05	NP-ELEC 10UF 25WV		
	C164		*	C90-1455-05	NP-ELEC 0. 1UF 50WV		
	C165			CK45FF1H223Z	CERAMIC 0. 022UF Z		
	C166-168			CE04LW1V100M	ELECTRO 10UF 35WV		
⚠	C169			C91-0647-05	CERAMIC 0. 01UF P	X	
	43	2B		E23-0159-05	TERMINAL		
	CN3			E10-2211-05	FLAT CABLE CONNECTOR		
	E1 ,4	2B		E13-0235-05	PHONO JACK (2P) PHONO		
	E2 ,3			E13-0820-05	PHONO JACK (INPUT)		
	E5	2B		E11-0165-05	MINIATURE PHONE JACK(SYNCRO)	UUEM	
	E5	2B		E11-0168-05	MINIATURE PHONE JACK(SYNCRO)	KPX	
	CP1 ,2			R90-0491-05	MULTI-COMP 820KX7 J 1/6W		
	R33			RS14KB3D151J	FL-PROOF RS 150 J 2W	KPUUEM	
	R33			RS14KB3D221J	FL-PROOF RS 220 J 2W	X	
	R91			RS14KB3D330J	FL-PROOF RS 33 J 2W	KPUUEM	
	R91			RS14KB3D680J	FL-PROOF RS 68 J 2W	X	
	R92			RS14KB3D101J	FL-PROOF RS 100 J 2W	X	
	R92			RS14KB3D470J	FL-PROOF RS 47 J 2W	KPUUEM	
	R170			RS14KB3D470J	FL-PROOF RS 47 J 2W	KPUUEM	
	K1	2B		S51-1036-05	MAGNETIC RELAY	KPUUEM	
	D1 -39			1SS133	DIODE	X	
	D1 -39			1SS176	DIODE	X	
	D1 -40			1SS133	DIODE	KPUUEM	
	D1 -40			1SS176	DIODE	KPUUEM	
	D41 ,42			HZS6. 8N(B2)	ZENER DIODE		
	D41 ,42			RD6. 8ES(B2)	ZENER DIODE		

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D43			W02-5008L	DIODE		
D44 -70			1SS133	DIODE		
D44 -70			1SS176	DIODE		
IC1			TC9163N	IC(BILATERAL SWITCH X16)		
IC2			TC9164N	IC(16CH BILATERAL SELECTOR SW)		
IC3			LC7522	IC(7CH GRAPHIC EQUALIZER)		
IC4 ,5			M5229P	IC(7CH GRAPHIC EQUALIZER)		
IC6			UPC4570C-A	IC(OP AMP X2)		
IC7			UPC7815HF	IC(VOLTAGE REGULATOR/ +15V)		
IC8			UPC4574C	IC(OP AMP X4)		
IC9			UPC4570C-A	IC(OP AMP X2)		
IC10			UPC7915HF	IC(VOLTAGE REGUATOR/ -15V)		
IC11			UPC4570C-A	IC(OP AMP X2)		
IC12,13			UPC4574C	IC(OP AMP X4)		
IC14			UPC4570C-A	IC(OP AMP X2)		
Q3			2SC3246	TRANSISTOR	KPUUEM	
Q5 ,6			2SC2878(B)	TRANSISTOR		
Q7			2SA733(A)(Q,P)	TRANSISTOR		
Q7			2SA933S(Q,R)	TRANSISTOR		
Q8			2SC2878(B)	TRANSISTOR		
CONTROL UNIT (X11-2660-10: K, P, 0-21: U, UE, M, 0-71: X)						
D26			B30-1012-05	LED(SLP-981C-50)		
D27			B30-1223-05	LED(LN21CPH(V)-C)		
C1 ,2			CF92FV1H623J	MF 0.062UF J		
C3 ,4			CF92FV1H333J	MF 0.033UF J		
C10			CK45FF1H103Z	CERAMIC 0.010UF Z		
C11			CE04LW1C102M	ELECTRO 1000UF 16WV		
C12			CE04LW1V100M	ELECTRO 10UF 35WV		
C13			CE04LW1A101M	ELECTRO 100UF 10WV		
C14			CF92FV1H223J	MF 0.022UF J		
C15 ,16			CE04LW1V100M	ELECTRO 10UF 35WV		
C17			C90-1416-05	ELECTRO 18UF 5.5WV		
C18			CK45FF1H103Z	CERAMIC 0.010UF Z		
C19			CE04LW1V331M	ELECTRO 330UF 35WV		
C20			CE04LW1A221M	ELECTRO 220UF 10WV		
C21 -24			CK45FF1H223Z	CERAMIC 0.022UF Z		
C25			CK45FB1H471K	CERAMIC 470PF K		
C26			CK45FB1H152K	CERAMIC 1500PF K		
C27			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C28			CK45FF1H103Z	CERAMIC 0.010UF Z		
C29 ,30			CK45FB1H471K	CERAMIC 470PF K		
C34			CK45FF1H223Z	CERAMIC 0.022UF Z		
C35 ,36			CE04LW1V100M	ELECTRO 10UF 35WV		
C37 ,38			CF92FV1H104J	MF 0.10UF J		
C39			C90-1333-05	NP-ELEC 22UF 10WV		
CN1			E10-2212-05	FLAT CABLE CONNECTOR		
X1			L78-0209-05	RESONATOR (4.194MHZ)		
CP1			R90-0483-05	MULTI-COMP 100KX13 J 1/6W		
CP2			R90-0492-05	MULTI-COMP 100KX8 J 1/6W		
CP3			R90-0483-05	MULTI-COMP 100KX13 J 1/6W		
CP4			R90-0803-05	MULTI-COMP 100KX7 J 1/4W		
R19			RD14GB2E1R0J	FL-PROOF RD 1.0 J 1/4W		

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R53			RS14KB3A820J	FL-PROOF RS 82 J 1W		
R54			RD14GB2E100J	FL-PROOF RD 10 J 1/4W		
VR1	3B	⁎	R29-5018-15	POTENTIOMETER (VOL CONTROL)		
VR2	3B	⁎	R05-5029-05	POTENTIOMETER (BALANCE)		
S1 -29	1A,2A		S40-1064-05	PUSH SWITCH (CD,PHONO,TUNER		
S30	3B		S40-4078-05	PUSH SWITCH (LOUDNESS)		
⚠ S31	2B		S31-2126-05	SLIDE SWITCH (POWER TYPE)	UUEM	
			2SC1740S(Q,R)	TRANSISTOR		
D1 -5			S5566B	DIODE		
D6			HSS104	DIODE		
D6			1SS133	DIODE		
D7			HZS3.9N(B2)	ZENER DIODE		
D7			RD3.9ES(B2)	ZENER DIODE		
D8 -10			HSS104	DIODE		
D8 -10			1SS133	DIODE		
D11			HZS6.8N(B2)	ZENER DIODE		
D11			RD6.8ES(B2)	ZENER DIODE		
D12 -23			HSS104	DIODE		
D12 -23			1SS133	DIODE		
D24			HZS5.1N(B2)	ZENER DIODE		
D24			RD5.1ES(B2)	ZENER DIODE		
D25			HSS104	DIODE		
D25			1SS133	DIODE		
FL1	2A		FIP12AMW19A	FLUORESCENT INDICATOR TUBE		
IC1			CXP5014-328S	IC(MICROPROCESSOR)		
IC2			LC7565	IC(GRAPHIC EQ FL DISPLAY DR)		
IC3			UPC7805H	IC(VOLTAGE REGULATOR/ +5V)		
IC4			BA6109	IC(MOTOR DRIVER)		
IC4			LB1641	IC(MOTOR DRIVER)		
IC5			TLP3501	IC(PHOTO TRIAC +LED)		
Q1			2SA1286	TRANSISTOR		
Q2 -4			2SC945(A)(Q,P)	TRANSISTOR		
A1	2A		W02-0975-05	ELECTRIC CIRCUIT MODULE		

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SPECIFICATIONS

PERFORMANCE

Input Sensitivity	
PHONO	2.5 mV, 47 kohms
TUNER/AUX/TAPE PLAY/CD/VIDEO	150 mV, 33 kohms
Signal to Noise Ratio (IHF-A) (IHF'66)	
PHONO	79 dB, 2.5 mV input 85 dB, 5.0 mV input
TUNER/AUX/TAPE PLAY/CD/VIDEO	103 dB
Maximum Input Voltage for Phono	130 mV (RMS), T.H.D. 0.03% at 1,000 Hz
Frequency Response	
PHONO	RIAA Standard Curve ±0.3 dB (20 Hz - 20 kHz)
LINE → SPEAKER	10 Hz - 70 kHz (−3 dB)
Total Harmonic Distortion	
LINE → SPEAKER	
20 Hz ~ 20 kHz	0.004% at Rated Output
1 kHz	0.003% at 1/2 Rated Output
Output Voltage and Impedance	TAPE REC: 150 mV/330 ohms PRE OUT: 1000 mV/330 ohms
Loudness Control	+8 dB (100 Hz) (at volume −30 dB)
Graphic equalizer control (60 Hz, 150 Hz, 400 Hz, 1 kHz, 2.4 kHz, 6 kHz, 15 kHz)	±12 dB

GENERAL

Power Consumption	15 W
AC Outlet	1 Switched (Except for some areas.)
Dimensions	W 420 mm (16-9/16") H 80 mm (3-1/8") D 272 mm (10-11/16")
Weight (Net)	3.0 kg (6.6 lb)

Kenwood follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

Kenwood poursuit une politique de progrès constants en ce qui doncerne le développement. Pour cette raison, les spécifications sont sujettes à modifications sans préavis.

Kenwood strebt ständige, Verbesserungen in der Entwicklung an. Daher bleiben Änderungen der technischen Daten jederzeit vorbehalten.

Note

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on the U.S.A. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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